

## ARG42740 anti-IDH1 antibody

Package: 50 µg  
Store at: -20°C

### Summary

|                     |                                                                                                                                                                                      |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Description | Rabbit Polyclonal antibody recognizes IDH1                                                                                                                                           |
| Tested Reactivity   | Hu, Ms, Rat                                                                                                                                                                          |
| Predict Reactivity  | Hm                                                                                                                                                                                   |
| Tested Application  | FACS, ICC, IHC-Fr, IHC-P, WB                                                                                                                                                         |
| Host                | Rabbit                                                                                                                                                                               |
| Clonality           | Polyclonal                                                                                                                                                                           |
| Isotype             | IgG                                                                                                                                                                                  |
| Target Name         | IDH1                                                                                                                                                                                 |
| Species             | Human                                                                                                                                                                                |
| Immunogen           | Synthetic peptide corresponding to aa. 381-413 of Human IDH1.<br>(KGLPNVQRSDYLNTFEFMDKLGLENLKIKLAQAK)                                                                                |
| Conjugation         | Un-conjugated                                                                                                                                                                        |
| Alternate Names     | IDPC; EC 1.1.1.42; Cytosolic NADP-isocitrate dehydrogenase; IDP; HEL-S-26; HEL-216; Isocitrate dehydrogenase [NADP] cytoplasmic; IDH; PICD; IDCD; NADP; Oxalosuccinate decarboxylase |

### Application Instructions

| Application table | Application | Dilution       |
|-------------------|-------------|----------------|
|                   | FACS        | 1:150 - 1:500  |
|                   | ICC         | 1:200 - 1:1000 |
|                   | IHC-Fr      | 1:200 - 1:1000 |
|                   | IHC-P       | 1:200 - 1:1000 |
|                   | WB          | 1:500 - 1:2000 |

**Application Note**  
IHC-P: Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min.  
\* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

**Observed Size**  
47 kDa

### Properties

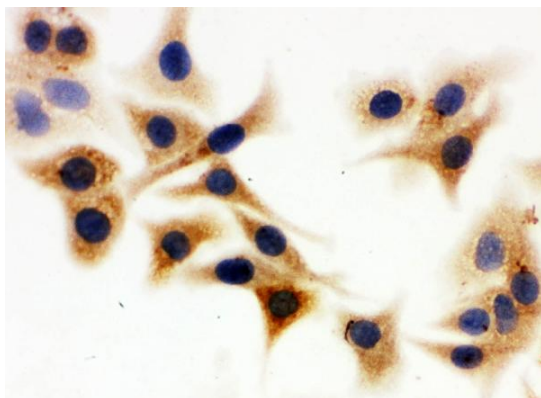
|              |                                                                                   |
|--------------|-----------------------------------------------------------------------------------|
| Form         | Liquid                                                                            |
| Purification | Affinity purification with immunogen.                                             |
| Buffer       | 0.2% Na <sub>2</sub> HPO <sub>4</sub> , 0.9% NaCl, 0.05% Sodium azide and 5% BSA. |
| Preservative | 0.05% Sodium azide                                                                |

|                     |                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stabilizer          | 5% BSA                                                                                                                                                                                                                                                                                                                     |
| Concentration       | 0.5 mg/ml                                                                                                                                                                                                                                                                                                                  |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |
| Note                | For laboratory research only, not for drug, diagnostic or other use.                                                                                                                                                                                                                                                       |

## Bioinformation

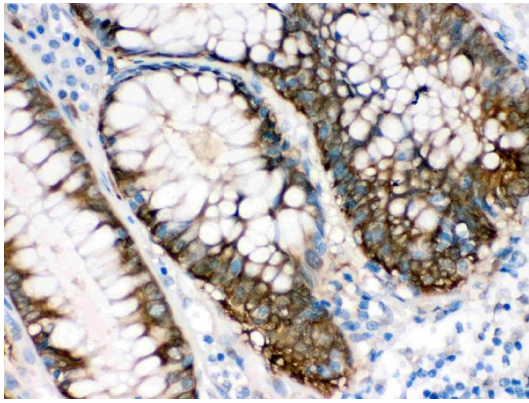
|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene Symbol           | IDH1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Gene Full Name        | isocitrate dehydrogenase 1 (NADP+), soluble                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Background            | Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. Each NADP(+)-dependent isozyme is a homodimer. The protein encoded by this gene is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes. It contains the PTS-1 peroxisomal targeting signal sequence. The presence of this enzyme in peroxisomes suggests roles in the regeneration of NADPH for intraperoxisomal reductions, such as the conversion of 2, 4-dienoyl-CoAs to 3-enoyl-CoAs, as well as in peroxisomal reactions that consume 2-oxoglutarate, namely the alpha-hydroxylation of phytanic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production. Alternatively spliced transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Sep 2013] |
| Highlight             | Related products:<br><a href="#">Isocitrate Dehydrogenase antibodies</a> ; <a href="#">Isocitrate Dehydrogenase ELISA Kits</a> ; <a href="#">Anti-Rabbit IgG secondary antibodies</a> ;<br>Related news:<br><a href="#">TCA intermediate fumarate promotes mitobiogenesis</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Calculated Mw         | 47 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| PTM                   | Acetylation at Lys-374 dramatically reduces catalytic activity. [UniProt]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Cellular Localization | Cytoplasm. Peroxisome. [UniProt]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Images



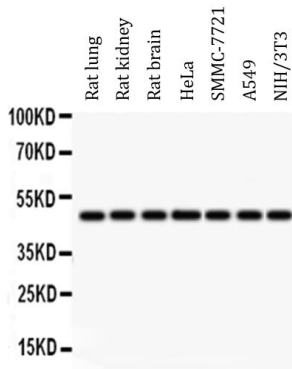
ARG42740 anti-IDH1 antibody ICC image

Immunocytochemistry: A549 cells were blocked with 10% goat serum and then stained with ARG42740 anti-IDH1 antibody at 1 µg/ml dilution, overnight at 4°C.



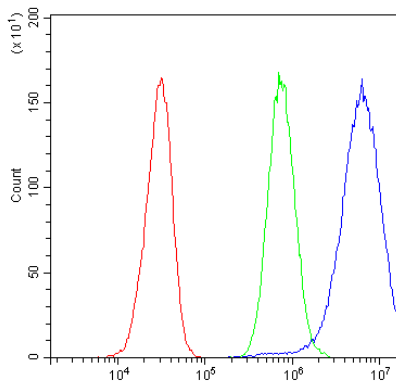
ARG42740 anti-IDH1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human intestinal cancer tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42740 anti-IDH1 antibody at 1  $\mu\text{g}/\text{ml}$  dilution, overnight at 4°C.



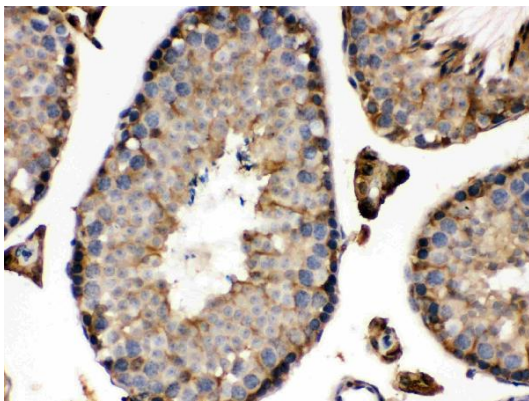
ARG42740 anti-IDH1 antibody WB image

Western blot: 50  $\mu\text{g}$  of sample under reducing conditions. Rat lung, Rat kidney, Rat brain, HeLa, SMMC-7721, A549 and NIH/3T3 whole cell lysates stained with ARG42740 anti-IDH1 antibody at 0.5  $\mu\text{g}/\text{ml}$  dilution, overnight at 4°C.



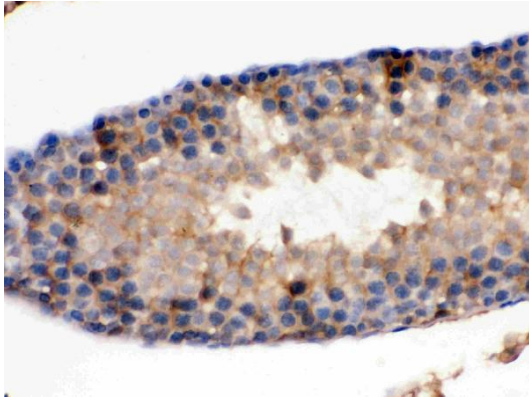
ARG42740 anti-IDH1 antibody FACS image

Flow Cytometry: HepG2 cells were blocked with 10% normal goat serum and then stained with ARG42740 anti-IDH1 antibody (blue) at 1  $\mu\text{g}/10^6$  cells for 30 min at 20°C, followed by incubation with DyLight<sup>®</sup>488 labelled secondary antibody. Isotype control antibody (green) was Rabbit IgG (1  $\mu\text{g}/10^6$  cells) used under the same conditions. Unlabelled sample (red) was also used as a control.



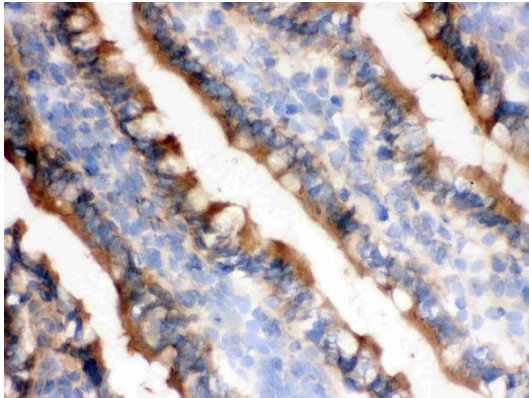
ARG42740 anti-IDH1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse testis tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42740 anti-IDH1 antibody at 1  $\mu\text{g}/\text{ml}$  dilution, overnight at 4°C.



ARG42740 anti-IDH1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat testis tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42740 anti-IDH1 antibody at 1  $\mu\text{g}/\text{ml}$  dilution, overnight at 4°C.



ARG42740 anti-IDH1 antibody IHC-Fr image

Immunohistochemistry: Frozen section of Rat small intestine tissue. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42740 anti-IDH1 antibody at 1  $\mu\text{g}/\text{ml}$  dilution, overnight at 4°C.