

ARG63084 anti-PAG / Cbp antibody [MEM-255]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [MEM-255] recognizes PAG / Cbp
Tested Reactivity	Hu
Species Does Not React With	Ms, Rat, Bov
Tested Application	FACS, IHC-P, WB
Specificity	The clone MEM-255 recognizes an epitope (aa 235-280) of Csk-binding protein (Cbp) located in the cytoplasmic domain, also known as protein associated with glycosphingolipid-enriched microdomains (PAG).
Host	Mouse
Clonality	Monoclonal
Clone	MEM-255
Isotype	IgG2a
Target Name	PAG / Cbp
Species	Human
Immunogen	Recombinant intracellular fragment (aa 97-432) of human Cbp (PAG).
Conjugation	Un-conjugated
Alternate Names	Transmembrane phosphoprotein Cbp; Csk-binding protein; CBP; PAG; Transmembrane adaptor protein PAG; Phosphoprotein associated with glycosphingolipid-enriched microdomains 1

Application Instructions

Application table	Application	Dilution
	FACS	2 µg/ml
	IHC-P	Assay-dependent
	WB	Assay-dependent
Application Note	FACS: Intracellular staining, permeabilization required. WB: Csk binding protein is an ubiquitously expressed 46 kDa transmembrane adaptor protein present in membrane microdomains (rafts), which however migrates on SDS-PAGE gels anomalously as an 80 kDa molecule. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	IHC-P: Tonsil and spleen	

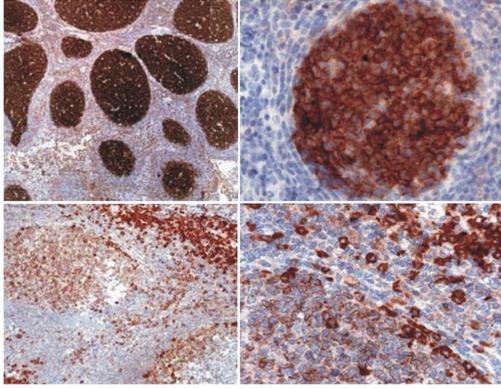
Properties

Form	Liquid
Purification	Purified from ascites by protein-A affinity chromatography.

Purity	> 95% (by SDS-PAGE)
Buffer	PBS (pH 7.4) and 15 mM Sodium azide
Preservative	15 mM Sodium azide
Concentration	1 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

Database links	GeneID: 55824 Human Swiss-port # Q9NWO8 Human
Gene Symbol	PAG1
Gene Full Name	phosphoprotein membrane anchor with glycosphingolipid microdomains 1
Background	PAG (phosphoprotein associated with GEMs), also known as Cbp (Csk-binding protein), is a ubiquitously expressed 46 kDa transmembrane adaptor protein present in membrane rafts (glycosphingolipid-enriched microdomains), which however migrates on SDS PAGE gels anomalously as an 80 kDa molecule. Following tyrosine phosphorylation by Src family kinases, PAG binds and thereby activates the protein tyrosine kinase Csk, the major negative regulator of the Src family kinases. Signaling via the B-cell receptor in B cells or high affinity IgE receptor (FcεRI) in mast cells leads to PAG increased tyrosine phosphorylation and Csk binding, while T cell receptor signaling causes PAG dephosphorylation, loss of Csk binding and increased activation of the protein tyrosine kinase Lck.
Function	Negatively regulates TCR (T-cell antigen receptor)-mediated signaling in T-cells and FCER1 (high affinity immunoglobulin epsilon receptor)-mediated signaling in mast cells. Promotes CSK activation and recruitment to lipid rafts, which results in LCK inhibition. Inhibits immunological synapse formation by preventing dynamic arrangement of lipid raft proteins. May be involved in cell adhesion signaling. [UniProt]
Research Area	Signaling Transduction antibody
Calculated Mw	47 kDa
PTM	Palmitoylated. Phosphorylated by FYN on Tyr-317 in resting T-cells; which promotes interaction with CSK. Dephosphorylated by PTPRC/CD45 upon TCR activation; which leads to CSK dissociation. May also be dephosphorylated by PTPN11. Hyperphosphorylated in mast cells upon FCER1 activation. Phosphorylated by LYN.



ARG63084 anti-PAG / Cbp antibody [MEM-255] IHC-P image

Immunohistochemistry: Lymph node lymphoid follicle and follicular lymphoma sections stained with ARG63084 anti-PAG / Cbp antibody [MEM-255].

Cbp/PAG is also expressed more weakly in T cells in tonsil and the thymic medulla.