



11-346-C100

Monoclonal Antibody to PAG / Cbp Purified Antibody (0.1 mg)

Clone:	PAG-C1
Isotype:	Mouse IgG2b
Specificity:	The antibody PAG-C1 recognizes an epitope located in the C-terminal domain of Csk-binding protein (Cbp / PAG), a 46 kDa ubiquitously expressed transmembrane adaptor protein present in membrane rafts (glycosphingolipid-enriched microdomains), which however migrates on SDS PAGE gels anomalously as an 80 kDa molecule.
Immunogen:	C-terminal peptide (last 15 amino acids) of human Csk binding protein coupled to KLH.
Species Reactivity:	Human, Mouse, Rat, Bovine, Other not tested
Application:	Immunoprecipitation <i>Positive control:</i> RAJI human Burkitt lymphoma cell line Immunohistochemistry (paraffin sections) <i>Positive tissue:</i> Appendix (germinal center of lymphatic follicle) <i>Application note:</i> heat-mediated antigen retrieval in citrate buffer pH 6.1
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified from ascites by protein-A affinity chromatography.
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.
Expiration:	See vial label
Lot Number:	See vial label
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.

For laboratory research only, not for drug, diagnostic or other use.



Antibodies

References:

- *Horejsí V, Zhang W, Schraven B.: Transmembrane adaptor proteins: organizers of immunoreceptor signalling. *Nat Rev Immunol.* 2004 Aug;4(8):603-16.
- *Simeoni L, Smida M, Posevitz V, Schraven B, Lindquist JA.: Right time, right place: the organization of membrane proximal signaling. *Semin Immunol.* 2005 Feb;17(1):35-49.
- *Baumgartner M, Angelisova P, Setterblad N, Mooney N, Werling D, Horejsi V, Langsley G.: Constitutive exclusion of Csk from Hck-positive membrane microdomains permits Src kinase-dependent proliferation of Theileria-transformed B lymphocytes. *Blood.* 2003 Mar 1;101(5):1874-81.
- *Davidson D, Bakinowski M, Thomas ML, Horejsi V, Veillette A.: Phosphorylation-dependent regulation of T-cell activation by PAG/Cbp, a lipid raft-associated transmembrane adaptor. *Mol Cell Biol.* 2003 Mar;23(6):2017-28.
- *Vang T, Abrahamsen H, Myklebust S, Horejsi V, Tasken K.: Combined spatial and enzymatic regulation of Csk by cAMP and protein kinase a inhibits T cell receptor signaling. *J Biol Chem.* 2003 May 16;278(20):17597-600.

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