



1D-347-C025

Monoclonal Antibody to PAG / Cbp Dyomics 647 (DY647) conjugated (0.025 mg)

Clone:	MEM-255
Isotype:	Mouse IgG2a
Specificity:	The antibody 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).
Immunogen:	Recombinant intracellular fragment (aa 97-432) of human Cbp (PAG).
Species Reactivity:	Human
Negative Species:	Mouse, Rat, Bovine
Preparation:	The purified antibody is conjugated with Dyomics 647 (DY647) under optimum conditions. The conjugate is purified by size-exclusion chromatography.
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label. Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.
Usage:	The reagent is designed for Flow Cytometry analysis. Suggested working dilution is 1:1000. Indicated dilution is recommended starting point for use of this product. Working concentrations should be determined by the investigator.
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.
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- *Brdickova N, Brdicka T, Andera L, Spicka J, Angelisova P, Milgram SL, Horejsi V: Interaction between two adapter proteins, PAG and EBP50: a possible link between membrane rafts and actin cytoskeleton. *FEBS Lett.* 2001 Oct 26;507(2):133-6.
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- *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.
- *Tedoldi S, Paterson JC, Hansmann ML, Natkunam Y, Rudiger T, Angelisova P, Du MQ, Robertson H, Roncador G, Sanchez L, Pozzobon M, Masir N, Barry R, Pileri S, Mason DY, Marafioti T, Horejsi V: Transmembrane adaptor molecules: a new category of lymphoid-cell markers. *Blood.* 2006 Jan 1;107(1):213-21. Epub 2005 Sep 13.
- *Svec A, Velenská Z, Horejsí V: Expression pattern of adaptor protein PAG: correlation between secondary lymphatic follicle and histogenetically related malignant lymphomas. *Immunol Lett.* 2005 Aug 15;100(1):94-7.

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