anti-human CD222 PE-conjugated

PE-conjugated monoclonal antibody MEM-238 to CD222 (Human)

Cat-No: 21272224 500 μl

Clone: MEM-238

Specificity: The antibody MEM-238 recognizes an epitope between domains 2 and 5 of CD222 (IGF2 receptor), a ubiquitously expressed 250 kDa multifunctional type I transmembrane protein. The majority of CD222 is found in the late endosomal/prelysosomal compartment, 5-10% in the plasma membrane and the truncated (220 kDa) form of CD222 is present in human and bovine serum.

Isotype subclass: Mouse IgG1

Form: The purified antibody is conjugated with R-Phycoerythrin (R-PE) under optimum conditions. The reagent is adjusted for direct use. No reconstitution is necessary.

Physical state: Liquid

Buffer/Additives/Preservative: PBS containing 1% BSA and 0.09% sodium azide (pH 7.2)

Expiration date: The reagent is stable until the expiry date stated on the vial label.

Storage conditions: Store at 4 °C. Avoid prolonged exposure to light.

Application: Flow Cytometry

Background: CD222 (CIMPR, cation-independent mannose 6-phosphate receptor; IGF2 receptor) is a ubiquitously expressed 250 kDa transmembrane protein. No more than 10% of CD222 is present on the cell surface where it serves as a multifunctional receptor. Intracellular (major) fraction of CD222 is involved in transport of newly synthesized lysosomal enzymes modified by mannose 6-phosphate from Golgi apparatus to lysosomes. The cell surface CD222 binds and internalizes exogeneous mannose 6-phosphate-containing ligands. Importantly, CD222 is crutial for internalization and degradation of insulin-like growth factor 2, thus controling cell growth. CD222 also complexes CD87 (urokinase-type plasminogen-activator receptor), plasminogen and latent TGF- β , last but not least CD222 serves as a receptor for heparanase and even for Listeria.

References:

- *Leukocyte Typing VII., Mason D. et al. (Eds.), Oxford University Press (2002).
- *Leksa V and others: 2005 Oct 1;118(Pt 19):4577-86.
- *Gasanov U and others: 2006 Jan;74(1):566-77.
- *Wood RJ, Hulett MD: 2008 Feb 15;283(7):4165-76.

Warning: Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

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