

## DESCRIPTION

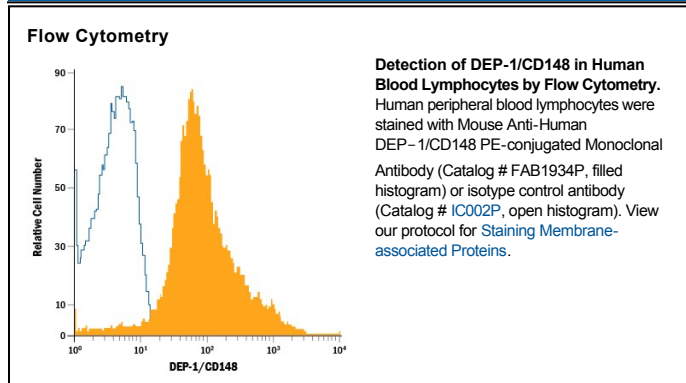
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human DEP-1/CD148 in Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 143-41
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Phytohemagglutinin-stimulated human peripheral blood mononuclear cells
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Flow Cytometry</b>	10 µL/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## BACKGROUND

Density Enhanced Protein Tyrosine Phosphatase (DEP-1), also known as CD148, HPTP-eta, and PTP Receptor Type J (PTPRJ), is an enzyme that removes phosphate groups covalently attached to tyrosine residues in proteins. A large (220 kDa) glycoprotein found at the cell surface, DEP-1 levels are increased with high cell density (1). DEP-1 phosphatase activity is enhanced by basement membrane proteins (2), suggesting it is involved in regulating cell adhesion and contact interactions. High levels of expression dampen PDGF (3), VEGF (4), and T-cell receptor (5) responses. DEP-1 is widely expressed in tissues, particularly ones forming epithelioid monolayers (6). In the immune system, DEP-1 is found on all cell lineages and is highest on granulocytes (7). *Dep-1* is the mutated gene in the Susceptibility to Colon Cancer locus *Sccl1*, which is altered in many human colorectal adenomas (8). Gene knockout mice lacking DEP-1 die at midgestation due to failures in cardiovascular development (9). DEP-1 dephosphorylates a variety of proteins, including the HGF (10), PDGF (11), and VEGF (4) receptors, and beta-Catenin (12). The recombinant protein is the intracellular region of DEP-1 containing the catalytic domain.

## References:

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