DESCRIPTION
Species Reactivity Human
Specificity Detects human DEP-1/CD148 in Western blots.
Source Monoclonal Mouse IgG, Clone # 143-41
Purification Protein A or G purified from hybridoma culture supernatant
Immunogen Phytohemagglutinin-stimulated human peripheral blood mononuclear cells
Formulation Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

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.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Recommended Concentration</th>
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<tbody>
<tr>
<td>Western Blot</td>
<td>1 µg/mL</td>
</tr>
<tr>
<td>Flow Cytometry</td>
<td>2.5 µg/10^6 cells</td>
</tr>
<tr>
<td>Immunoprecipitation</td>
<td>2.5 µg/500 µg cell lysate</td>
</tr>
<tr>
<td>CyTOF-ready</td>
<td>Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.</td>
</tr>
</tbody>
</table>

DATA

Western Blot

Detection of Human DEP-1/CD148 by Western Blot.
Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line and Raji human Burkitt's lymphoma cell line. PVDF membrane was probed with 1 µg/mL of Human DEP-1/CD148 Monoclonal Antibody (Catalog # MAB1934) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for DEP-1/CD148 at approximately 220 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution
Reconstitute at 0.5 mg/mL in sterile PBS.

Shipping
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C.

Stability & Storage
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.
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 Scc1, 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: