

DESCRIPTION

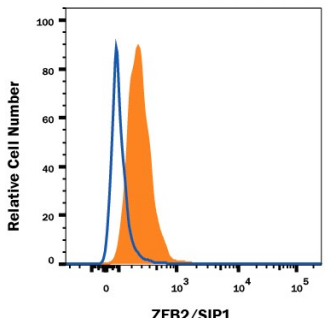
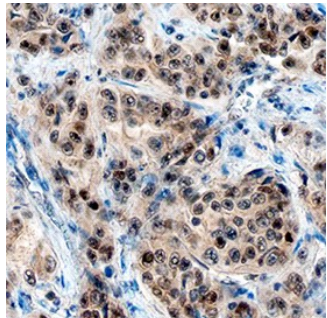
Species Reactivity	Human
Specificity	Detects human ZEB2/SIP1 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 923328
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human ZEB2/SIP1 Asn363-Lys537 Accession # O60315
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

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
Immunohistochemistry	8-25 µg/mL	See Below
Intracellular Staining by Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Intracellular Staining by Flow Cytometry</p>  <p>Detection of ZEB2/SIP1 in A549 Human Cell Line by Flow Cytometry. A549 human lung carcinoma cell line was stained with Mouse Anti-Human ZEB2/SIP1 Monoclonal Antibody (Catalog # MAB73782, filled histogram) or isotype control antibody (Catalog # MAB004, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). To facilitate intracellular staining, cells were fixed and permeabilized with FlowX FoxP3 Fixation & Permeabilization Buffer Kit (Catalog # FC012). View our protocol for Staining Intracellular Molecules.</p>	<p>Immunohistochemistry</p>  <p>ZEB2/SIP1 in Human Liver. ZEB2/SIP1 was detected in immersion fixed paraffin-embedded sections of human liver using Mouse Anti-Human ZEB2/SIP1 Monoclonal Antibody (Catalog # MAB73782) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to nuclei in hepatocytes. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>
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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. <ul style="list-style-type: none"> ● 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.

BACKGROUND

SIP1 (Smad-interacting protein 1), also called ZEB2 (Zinc finger E-box-binding homeobox 2), is a nuclear transcription factor. SIP1 contains seven C2H2-type zinc finger domains within amino acids (aa) 211-334 and 999-1076, a Smad-MHZ binding domain (aa 437-487), an atypical homeobox domain (aa 644-703), and phosphorylation, sumoylation and acetylation sites. The 1214 aa SIP1 gives a calculated molecular weight of 136 kDa, but may actually appear closer to 200 kDa due to modifications. A 1190 aa isoform lacks aa 111-134. Within aa 363-537, human SIP1 shares 98% and 97% aa sequence identity with mouse and rat SIP1, respectively. SIP1 is highly expressed in postmitotic neocortical cells and influences cell fate decisions in embryonic brain development. Point mutations causing underexpression of SIP1 are associated with Mowat-Wilson syndrome (MWIS), also known as Hirschprung disease mental retardation syndrome.