

#### DESCRIPTION

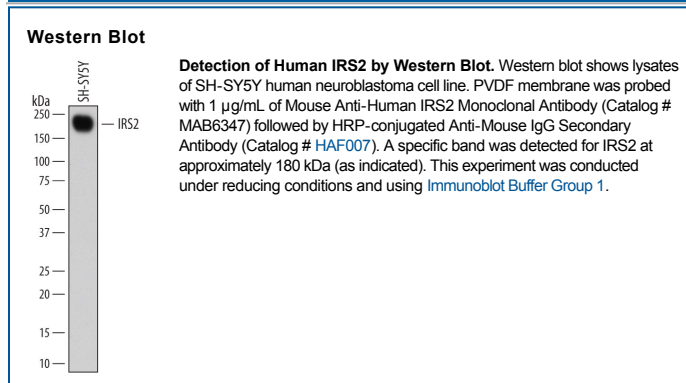
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IRS2 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human IRS1 or recombinant mouse IRS3 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 676415
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human IRS2 Pro1035-Ile1136 Accession # Q9Y4H2
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS and NaN <sub>3</sub> with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below

#### DATA



#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

IRS2 (insulin receptor substrate 2) is a 180-190 kDa substrate intermediate that lies between various cytokine receptors and downstream signaling molecules. It is the primary IRS protein found in hematopoietic cells. Depending upon the receptor, IRS2 undergoes phosphorylation, either via Tyk2 following type I IFN binding, or via JAK1 and 3 following IL-4, -7 and -15 binding. This event allows for its subsequent association with PI-3 kinase. Human IRS2 is 1338 amino acids (aa) in length with a predicted MW of 138 kDa. It contains one PH (pleckstrin homology) domain (aa 16-144), followed by a PTB (phosphotyrosine-binding) domain (aa 194-298) and seven YxxM (Tyr/x/x/Met) motifs (aa 540-1075). IRS2 is phosphorylated on multiple Ser and Tyr residues. There are two potential splice variants. One shows a 16 aa substitution for the C-terminal Glu, while another shows an 11 aa substitution for aa 1314-1338. Over aa 1035-1136, human IRS2 shares 86% aa identity with mouse IRS2.