

DESCRIPTION

Species Reactivity	Human
Specificity	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.
Source	Monoclonal Mouse IgG _{2A} Clone # 676415
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human IRS2 Pro1035-Ile1136 Accession # Q9Y4H2
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.