

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat FRS2 isoforms when phosphorylated at Y436.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	Phosphopeptide containing human FRS2 Y436 site
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 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
Western Blot	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

DATA

<p>Western Blot</p>	<p>Detection of Human and Rat Phospho-FRS2 (Y436) by Western Blot. Western blot shows lysates of MCF-7 human breast cancer cell line untreated (-) or treated (+) with 100 µM pervanadate (PV) for 10 minutes and PC-12 rat adrenal pheochromocytoma cell line untreated or treated with 100 ng/mL Recombinant Rat β-NGF (Catalog # 556-NG) for 10 minutes. PVDF membrane was probed with 1 µg/mL of Rabbit Anti-Human/Mouse/Rat Phospho-FRS2 (Y436) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5126), followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). Bands were detected for Phospho-FRS2 (Y436) at approximately 70 - 90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p> <p>Phospho-FRS2 (Y436) in A431 Human Cell Line. FRS2 phosphorylated at Y436 was detected in immersion fixed A431 human epithelial carcinoma cell line untreated (lower panel) or treated (upper panel) with pervanadate using Rabbit Anti-Human/Mouse/Rat Phospho-FRS2 (Y436) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5126) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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

FRS2 (FGF R substrate 2; also known as SNT and FRS2-α) is a 70-90 kDa member of the FRS family of lipid-anchored docking proteins. It is an intermediary between FGF and RTK receptors and their Ras/MAPK signaling cascades. FRS2 contains a membrane-anchoring myristoylation signal (aa 1-6), a PTB domain that interacts with FGF and NGF receptors (aa 13-115), and a C-terminal tyrosine-rich region that serves as a docking site for GRB-2 and SHP-2 (aa 196-471). Phosphorylation of Y436 by activated RTKs is required for efficient SHP-2 recruitment.