Human NRG1 Isoform SMDF Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF378

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human NRG1 Isoform SMDF in direct ELISAs and Western blots. Neutralizes 60-80% of the biological activity of human NRG1 Isoform SMDF.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant human NRG1 Isoform SMDF Met1-Glu296 Accession # NP_039253
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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.

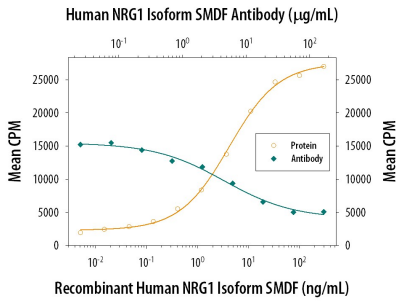
APPLICATIONS

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	0.1 µg/mL	Recombinant Human NRG1 Isoform SMDF (Catalog # 378-SM)
Neutralization	Measured by its ability to neutralize NRG1 Isoform SMDF-induced proliferation in the MCF−7 human breast cancer cell line. Karey, K. P. *et al.* (1988) Cancer Research **48**:4083. The Neutralization Dose (ND_{50}) is typically 2−8 µg/mL in the presence of 12 ng/mL Recombinant Human NRG1 Isoform SMDF.	

DATA

Neutralization



Cell Proliferation Induced by NRG1 Isoform SMDF and Neutralization by Human NRG1 Isoform SMDF Antibody. Recombinant Human NRG1 Isoform SMDF (Catalog # 378-SM) stimulates proliferation in the MCF-7 human breast cancer cell line in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Human NRG1 Isoform SMDF (12 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human NRG1 Isoform SMDF Antigen Affinity-purified Polyclonal Antibody (Catalog # AF378). The ND_{50} is typically 2-8 µg/mL.

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.** ● 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

The heregulin (also known as neuregulin) family of cytokines is comprised of multiple secreted or membrane-bound isoforms that are produced from the single *heregulin* gene by alternative splicing and/or usage of different promoters. All heregulin family members share an epidermal growth factor (EGF)-like domain (α- or β-variant) that interacts with the erbB family of tyrosine kinase receptors. NRG1 Isoform SMDF is a heregulin isoform containing a C-terminal EGF-like domain (β-variant) and a unique N-terminal sequence that lacks an Ig-like domain which is present in all other known heregulins. NRG1 Isoform SMDF also lacks a transmembrane domain and the cytoplasmic tail. NRG1 Isoform SMDF expression has been found to be restricted to the nervous system. It is likely that NRG1 Isoform SMDF may play an important role in neural-specific functions.

References:

1. Yarden, Y. and D. Wen (1994) in *Guidebook to Cytokines and Their Receptors*, N.A. Nicola, Ed., Oxford University Press, p. 146.
2. Meyer, D. *et al.* (1997) Development **124:**3575.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956