TECHNICAL DATA SHEET

Recombinant Human Amphiregulin (Carrier-free)

Catalog Number: 21-7095

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human Amphiregulin (Carrier-free)

DESCRIPTION

Amphiregulin is a glycoprotein belonging to the EGF family that includes a variety of proteins such as the Neuregulins, TGF-alpha, HB-EGF and Epiregulin. These cytokines are characterized by the presence of at least one EGF structural unit, and all are synthesized as transmembrane precursors which are proteolytically cleaved to produce a soluble form. Amphiregulin stimulates the growth and proliferation of various cell types including keratinocytes, mammary epithelial cells and some fibroblasts, and has also been shown to inhibit growth in certain carcinoma cell lines. Amphiregulin is able to bind to, and signal through, the EGF receptor.

MOLECULAR MASS

Recombinant human Amphiregulin consists of 98 amino acid residues, resulting in a 11.3 kDa protein.

AMINO ACID SEQUENCE

SVRVEQVVKP PQNKTESENT SDKPKRKKKG GKNGKNRRNR KKKNPCNAEF QNFCIHGECK YIEHLEAVTC KCQQEYFGER CGEKSMKTHS MIDSSLSK

SOURCE	APPLICATIONS	PURITY	STORAGE
E. coli	Bioassay	95 %	-20°C

PROTEIN CONTENT

Verified by UV Spectroscopy and/or SDS-PAGE gel.

ENDOTOXIN LEVEL

Endotoxin level is <0.1 ng/µg of protein (<1 EU/µg).

AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

CROSS REACTIVITY

BIOACTIVITY

A stimulation assay is used to determine biological activity based on the proliferation of mouse Balb/c 3T3 cells. The expected ED_{50} for this effect is 5-10 ng/ml.

RESEARCH AREAS

Cancer, Inflammation, Neurobiology, Wound Healing

RECONSTITUTION

See Certificate of Analysis (COA) for lot specific reconstitution information.

REFERENCES

Marquardt H, Hunkapiller MW, Hood LE and Todaro GJ. 1984. Science. 223(4640): 1079-1082. Carpetner G and Zendequi JG. 1986. Exp Cell Res. 164(1): 1 -10. Shoyab M, McDonald VL, Bradley JG and Todaro GJ. 1988. Proc Natl Acad Sci USA. 85(17): 6528-6532. Pommier G, Culouscou JM, Garrouste F and Remacle-Bonnet M. 1988. Ann NY Acad Sci. 551: 382-384. Plowman GD, Green JM, McDonald VL, Neubauer MG, Disteche CM, Todaro GJ and Shoyab M. 1990. Mol Cell Biol. 10(5): 1969-1981. Berasain C and Avila MA. 2014. Semin Cell Dev Biol. 28: 31-41.