

## TECHNICAL DATA SHEET

# Recombinant Human Semaphorin 3A Fc (Carrier-free)

Catalog Number: 21-9230

## RPx-Pro™ Recombinant Protein PRODUCT INFORMATION

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Recombinant Human Semaphorin 3A Fc (Carrier-free)

### DESCRIPTION

The Semaphorins constitute a large family of secreted, GPI-anchored, and transmembrane cell signaling molecules. Semaphorins primarily function as axon growth cone guidance factors during neuronal development. Semaphorin 3A acts as a chemo-repellent to axons, and an inhibitor of the growth of axons by signaling through receptors, Neuropilin-1 and Plexin-A. Recombinant Human Semaphorin 3A Fc is a glycosylated, disulfide-linked homodimer of 1,976 amino acid residues, which includes the SEMA domain, immunoglobulin c2-like domain, and the C-terminal basic Arg/Lys-rich domain of the mature sequence, as well as an 8-residue N-terminal His-tag and a 230-residue C-terminal Fc region linked by two glycines. Recombinant Human Semaphorin 3A Fc has a calculated molecular weight of 226.2 kDa and therefore runs above the 200kDa marker by SDS-PAGE analysis under nonreducing conditions. When run under reducing conditions, this protein migrates as three distinct bands that, due to glycosylation, run higher than expected at apparent molecular weights of approximately 120-130 kDa, 90-100 kDa, and 35-40 kDa.

### MOLECULAR MASS

226.2 kDa

### AMINO ACID SEQUENCE

HHHHHHHHGK NNVPRLLKLSY KEMLESNNVI TFNGLANSSS YHTFLLDEER SRLYVGAKDH IFSFDLVNIK DFQKIVWPVS YTRRDECKWA GKDILKECAN FIKVLKAYNQ THLYACGTGA FHPICTYIEI GHHPEDNIFK LENSHPFENGR GKSPYDPKLL TASLLIDGEL YSGTAADFMDG RDAIFRFTLG HHHPIRTEQH DSRWLNDPKF ISAHLISESD NPEDDKVYFF FRENADIGE HSGKATHARIG QICKNDFGGH RSLVKNKWTTF LKARLICSVP GPNIDGTHFD ELQDVFLMNF KDPKNPVVYG VFTTSSNIFK GSAVCMYSMS DVRRVFLGPY AHRDGPYQW VPYQGRVPYP RPGTCPSKTF GGFSTKDLPL DDVITFARSH PAMYNPVFPM NNRPIVIKTD VNYQFTQIVV DRVDAEDGQY DVMFIGTDVG TVLKVVSIPK ETWYDLEEV LLEMTVFREP TAISAMELST KQQQLYIGST AGVAQLPLHR CDIYGKACAE CCLARDPYCA WDGSAACSRYF PTAKRATRAQ DIRNGDPLTH CSDLHHDNHH GHSPEERIIY GVENSSTFLE CSPKSQRALV YWQFQRRNEE RKEEIRVDDH IIRTDQGLLL RSLQKQDSGN YLCHAVEHGF IQTLLKVTLT VIDTEHLEEL LHKDDDDGDS KTKEMSNSMT PSQKVWYRDF MQLINHPNLN TMDEFCEQW KRDRKQRRQR PGHTPGNSNK WKHLQENKKG RNRRTHEFER APRSVGGPKS CDKTHTCPPC PAPELLGGPS VFLFPPKPKD TLMISRPEV TCVVVDVSH DPEVKFNWYV DGVEVHNAKT KPREEQYNST YRVVSVLTVL HQDWLNGKEY KCKVSNKALP APIEKTISKA KGQPREPVY TLPPSRDEL TKNQVSLTCLV KGFYPSDIAV EWESNGQPEN NYKTTPPVLD SDGSFFLYSK LTVDKSRWQQ GNVFSCSMH EALHNNHYTQK SLSLSPGK

### SOURCE

CHO

### APPLICATIONS

Bioassay

### PURITY

95 %

### STORAGE

-20°C

### PROTEIN CONTENT

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

N/A

### BIOACTIVITY

Determined by its ability to bind recombinant rat Neuropilin-1 Fc Chimera in a functional ELISA assay.

### RESEARCH AREAS

Immune System, Neurobiology

### RECONSTITUTION

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

### REFERENCES

Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.

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