

# Recombinant human Semaphorin 3C(R551A/R552A/R611A/R612A) protein

Catalog Number: ATGP4059

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

21-738aa

### UniProt No.

Q99985

### NCBI Accession No.

NP\_006370.1

### Alternative Names

Semaphorin 3C ,Semaphorin-3C, Semaphorin-3C isoform2, SEMA3C, Semaphorin-E, SEMAE, Sema E, SemE, SEME, Semaphorin E

## PRODUCT SPECIFICATION

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### Molecular Weight

107.2kDa (951aa)

### Concentration

1mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 90% by SDS - PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Tag

hIgG-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

Semaphorin 3C , also known as SemaE, is a member of the semaphorin family 3 that are grouped into eight major classes based on structure and phylogenetic tree analyses. It is expressed in all somitic motor neurons, in lung buds, and in cardiac neural crest cells during development. The functions of Semaphorin 3C are mediated

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primarily through binding to the Plexin-D1 and Neuropilin 1 or Neuropilin 2 coreceptor complex. Semaphorins are usually cues to deflect axons from inappropriate regions, especially important in the neural system development. Also, Semaphorin 3C activates integrins in certain cells, so in addition to its repulsive activities, it sometimes acts as a chemoattractant. Class 3 have an important function after traumatic central nervous system injuries, such as spinal cord injury. It regulate neuronal and non-neuronal cells associated with the traumatic injury due to their presence in the scar tissue. Recombinant human Semaphorin 3C, fused to hlgG-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

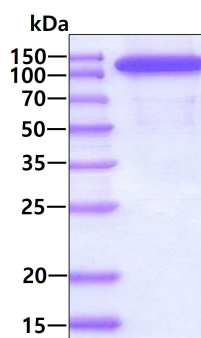
GSSQPQARVY LTFDELRETK TSEYFSLSHH PLDYRILLMD EDQDRIYVGS KDHILSLNIN NISQEALSVF WPASTIKVEE CKMAGKDPHT GCGNFVRVIQ TFNRTHLVYC GSGAFSPVCT YLNRGRRS ED QVF MIDSKCE SGKGRCSFNP NVNTVSVMIN EELFSGMYID FMGTDAAIFR SLTKRNAVRT DQHNSKWLSE PMFVDAHVIP DGTDPNDAKV YFFFKEKLT D NNRSTKQIHS MIARICPNDT GGLRSLVNKW TTFLKARLVC SVTDEDPET HFDELEDVFL LETDNPRTTL VYGIFTTSSS VFKGSAVCVY HLSDIQTVFN GPFAHKEGPN HQLISYQGRI PYPRPGT CPG GAFTPNMRTT KEFPDDV VTF IRNHPLMYS IYPIHKRPLI VRIGTDYKYT KIAVDRVNA A DGRYHVLFLG TDRGTVQKVV VLPTNNSVSG ELILEELEV F KNHAPITTMK ISSKKQQLYV SSNEGVSQVS LHRCHYGT A CADCC LARDP YCAWDGHSCS RFYPTGKRRS AAQDVRHG NP LTQCRGFNLK AYRNAAEIVQ YGVKNN TTF L ECAPKSPQAS IKWLLQKDKD AAKEVKLNER IIATSQGLLI RSVQGS DQGL YHCIATENSF KQTI AKINFK VLDSEMVAVV TDKWSPWTWA SSVRALPFHP KDIMGAFSHS EMQMINQYCK DTRQQHQQGD ESQKMRGDYK KLKALINS<LE PKSCDKTHTC PPCAPELLG GPSVFLFPPK PKDTLMISRT PEVTCVVVDV SHEDPEVKFN WYVDGVEVHN AKTKPREEQY NSTYRVVSVL TVLHQDWLNG KEYKCKVSNK ALPAPIEKTI SKAKGQPREP QVYTLPPSRD ELTKNQVSLT CLVKGFYPSD IAVEWESNGQ PENNYKTTTP VLDS DGSFFL YSKLTVDKSR WQQGNV FSCS VMHEALHNHY TQKSLSLSPG K>

## General References

- Adams, R. H. et al. (1997) EMBO J. 16:6077-6086.
- Gitler, A. D. et al. (2004) Dev. Cell 7:107-116.
- Bagnard, D. et al. (1998) Development 125:5043-5053.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain