

TECHNICAL DATA SHEET

Recombinant Human TLR-3 (Carrier-free)

Catalog Number: 21-7087

RPx-Pro™ Recombinant Protein
PRODUCT INFORMATION

CONTENTS

Recombinant Human TLR-3 (Carrier-free)

DESCRIPTION

Toll-Like Receptor-3 (TLR-3) is a member of the TLR family of pathogen pattern recognition molecules that play an important role in activation of the innate immune system. TLR-3 may be localized adjacent to the phagosomes of dendritic cells and macrophages, primarily in the placenta and pancreas. TLR-3 binds to and signals the presence of double stranded RNA (dsRNA), leading to activation of NF-kappaB and the production of type I interferons, initiating an antiviral immune response.

MOLECULAR MASS

Recombinant human TLR-3 is 77.4 kDa glycoprotein containing 681 residues which comprise the TLR-3 extracellular domain.

AMINO ACID SEQUENCE

STTKCTVSHE VADCSHLKLT QVPDDLPTNI TVLNLT HNQL RRLPAANFTR YSQLTSLDVG FNTISKLEPE LCQKLPMLKV LNLQHNELSQ
 LSDKTFACFT NLTELHLMSN SIQKIKNNPF VKQKNLITLD LSHNGLSSTK LGTQVQLENL QELLLSNNKI QALKSEELDI FANSSLKLEL
 SSNQIKEFSP GCFHAIGRLF GLFLNNVQLG PSLTEKLCLE LANTSIRNLS LSNSQLSTTS NTTFLGLKWT NLTMLDLSYNN LNVVGNDSFA
 WLPQLEYFFL EYNNIQHLFS HSLHGLFNVR YLNLKRSFTK QSISLASLPK IDDFSQWLK CLEHLNMEDN DIPGIKSNMF TGLINLKYLS
 LSNSFTSLRT LNETFVSLA HSPLHILNLT KNKISKIESD AFSWLGHLEV LDLGLNEIGQ ELTGQEWRL ENIFEIYLSY NKYLQLTRNS
 FALVPSLQRL MLRRVALKNV DSSPSPFQPLR NLTILDLSNN NIANINDDML EGGLEKLEILD LQHNNLARLW KHANPGGPIYF LKGLSHLHIL
 NLESNGFDEI PVEVFKDLFE LKIIDLGLNN LNTLPASVFNN QVSLKSLNLQ KNLITSVEKK VFGPAFRNLT ELDMRFNPFDC
 TCESIAWVFN WINETHTNIP ELSSHYLCNT PPHYHGFPVR LFDTSCKDS APFEL

SOURCE

HEK293 cells

APPLICATIONS

Bioassay

PURITY

95 %

STORAGE

-20°C

PROTEIN CONTENT

Content Verified by UV Spectroscopy and/or SDS-PAGE

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

Determined by its ability to inhibit IL-8 secretion induced by Poly I:C in the TLR3 receptor-expressing HEK293 cells (HEK293 TLR3r). The ED₅₀ for this effect is ≤ 30 µg/ml in the presence of 100 µg/ml of Poly I:C.

RESEARCH AREAS

Apoptosis; Inflammation; Receptors

RECONSTITUTION

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

REFERENCES

Nishiya T, Kajita E, Miwa S and DeFranco AL. 2005. J Biol Chem. 280: 37107-37117. Means TK, Golenbock DT and Fenton MJ. 2000. Cytokine Growth Factor Rev. 11(3): 219-232. Rock FL, Hardiman G, Timans JC, Kastelein RA and Bazan JF. 1998. Proc Natl Acad Sci USA 95(2): 588-593. Sen GC and Sarkar SN. 2005. Cytokine Growth Factor Rev. 16(1): 1-14. Alexopoulou L, Holt AC, Medzhitov R and Flavell RA. 2001. Nature. 413(6857): 732-738.

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