

Recombinant Mouse LRC33 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51733

Size: 10ug, 100ug

Protein Name: Transforming growth factor beta activator LRRC33 (Leucine-rich repeat-containing protein 33) (Negative regulator of reactive oxygen species)

Synonym: Nrros, Lrrc33

UniProt ID: Q8BMT4

UniProt Link: www.uniprot.org/uniprotkb/Q8BMT4/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 693 AA

Molecular Weight: 77 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MEFPPLWLCLGFHFLIVEWRSGPGTATAASQGGCKVVDGVADCRGLNLASVPSSLPPHSRMLILDA
NPLKDLWNHSLQAYPRLENLSLHSCHLDRISHYAFREQGHLRNLVLADNRLSENYKESAAALHTLLG
LRRDLSGNSLTEDMAALMLQNLSSLEVSLARNTLMRLDDSI FEGLEHLVELDLQRNYIFEIEGGAF
DGLTELRRNLNLAYNNLPCIVDFSLTQLRFLNVSYNILEWFLAAREEVAFELEILDLSHNQLLFFPLLPQC
GKLHTLLLQDNNMGFYRELYNTSSPQEMVAQFLLVDGNVTNITTVNLWEEFSSSDLSALRFLDMSQ
NQFRHLPDGFLLKTPSLSHLNLNQNLCKMLHIREHEPPGALTELDLSHNQLAELHLAPGLTGSLRNL
RVFNLSSNQLLGVPTGLFDNASSITTIDMSHNQISLCPQMVPVDWEGPPSCVDFRNMGSLRSLSLD
GCGLKALQDCPFQGTSLTHLDLSSNWGVNLNGSISPLWAVAPTQLQVLSLRDVGLGSGAAEMDFSAG
NLRALDLSGNSLTSPFKFKGSLALRTDLRRNSLTALPQRVVSEQPLRGLQTIYLSQNPYDCCGVEG
WGALQQHFKTVDLSMVTCLNLSKIVRVVELPEGLPQGCKWEQVDTGLFYLVILPSCLTLLVACTV
VFLTFFKKPLLQVIKSRCHWSSY

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Transforming growth factor beta activator LRRC33 (Leucine-rich repeat-containing protein 33) (Negative regulator of reactive oxygen species) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Key regulator of transforming growth factor beta-1 (TGFB1) specifically required for microglia function in the nervous system (PubMed:29909984). Required for activation of latent TGF-beta-1 in macrophages and microglia: associates specifically via disulfide bonds with the Latency-associated peptide (LAP), which is the regulatory chain of TGFB1, and regulates integrin-dependent activation of TGF-beta-1 (PubMed:29909984). TGF-beta-1 activation mediated by LRRC33/NRROS is highly localized: there is little spreading of TGF-beta-1 activated from one microglial cell to neighboring microglia, suggesting the existence of localized and selective activation of TGF-beta-1 by LRRC33/NRROS (PubMed:29909984). Indirectly plays a role in Toll-like receptor (TLR) signaling: ability to inhibit TLR-mediated NF-kappa-B activation and cytokine production is probably a consequence of its role in TGF-beta-1 signaling (Probable).

Subcellular Localization: Cell membrane ; Single-pass type I membrane protein . Endoplasmic reticulum membrane ; Single-pass type I membrane protein .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.