

Recombinant Rat GLYR1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52475

Size: 10ug, 100ug

Protein Name: Cytokine-like nuclear factor N-PAC (NPAC) (Glyoxylate reductase 1 homolog) (Nuclear protein NP60) (Putative oxidoreductase GLYR1)

Synonym: Glyr1, Np60

UniProt ID: Q5RKH0

UniProt Link: www.uniprot.org/uniprotkb/Q5RKH0/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 552 AA

Molecular Weight: 60 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAAVSLRLGDLVWGKLG RYPPWPGKIVNPPKDLKKPRGKKCFVKKFFGTEDHAWIKVEQLKPYHAH
KEEMIKINKGKRFQQA VDAVEEFLRRAGKGDQTSSHTSADDKNRRNSSEERSRPNSGDEKRKLSLS
EGKVKKNMGEGKKRVTSGSADRGSKCLKRAQE QSPRKRGRPPKDEKDLTIPESSTVKGMMAGPM
AAFKWQPTASEPVKDADPHFHHFLLSQTEKPAVCYQAITKKLKICEEETGSTSIQAADSTAVNGSITP
TDKKIGFLGLGLMGSGIVSNLLKMGHTVTVWNRTAEKCDLFIQEGARLGRTPAEVVSTCDITFACVSD
PKAAKDLVLGPGSVLQGIRPGKCYVDMSTVDADTVTELAQVIVSRGGRFLEAPVSGNQQLSNDGML
VILAAGDRGLYEDCSSCFQAMGKTSFFLGEVGNAAKMMLIVNMVQGSFMATIAEGLTLAQVTGQSQ
QTLLDILNQQLASIFLDQKCQNILQGNFKPDFYLKYIQKDLRLAIALGDAVNHPTPMAAAANEVYKRA
KALDQSDNDMSAVYRAYIH

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 Cytokine-like nuclear factor N-PAC (NPAC) (Glyoxylate reductase 1 homolog) (Nuclear protein NP60) (Putative oxidoreductase GLYR1) 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: Cytokine-like nuclear factor with chromatin gene reader activity involved in chromatin modification and regulation of gene expression. Acts as a nucleosome-destabilizing factor that is recruited to genes during transcriptional activation. Recognizes and binds histone H3 without a preference for specific epigenetic markers and also binds DNA. Interacts with KDM1B and promotes its histone demethylase activity by facilitating the capture of H3 tails, they form a multifunctional enzyme complex that modifies transcribed chromatin and facilitates Pol II transcription through nucleosomes. Stimulates the acetylation of 'Lys-56' of nucleosomal histone H3 (H3K56ac) by EP300. With GATA4, co-binds a defined set of heart development genes and coregulates their expression during cardiomyocyte differentiation. Regulates p38 MAP kinase activity by mediating stress activation of MAPK14/p38alpha and specifically regulating MAPK14 signaling. Indirectly promotes phosphorylation of MAPK14 and activation of ATF2. The phosphorylation of MAPK14 requires upstream activity of MAP2K4 and MAP2K6.

Subcellular Localization: Nucleus . Chromosome . Note=Found in actively RNAPolIII-transcribed gene bodies.

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.