

Product datasheet for TP507518

OriGene Technologies, Inc.

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Terf2 (NM_001083118) Mouse Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Purified recombinant protein of Mouse telomeric repeat binding factor 2 (Terf2), with C-terminal

MYC/DDK tag, expressed in HEK293T cells, 20ug

Species: Mouse

Expression Host: HEK293T

Expression cDNA

>MR207518 representing NM 001083118

Clone or AA Sequence:

Red=Cloning site Green=Tags(s)

MAAGAGTAGPASGPGVVRDPMASQPRKRPSREGGEGGEGERRSNTMAGGGGSSDSSGRAASRRASRSGGR ARRGRHEPGLGGAAERGAGEARLEEAVNRWVLKFYFHEALRAFRSSRYRDFRQIRDIMQALLVRPLGKEH TVSRLLRVMQCLSRIEEGENLDCSFDMEAELTPLESAINVLEMIKTEFTLTDSMVESSRKLVKEAAVIIC IKNKEFEKASKILKKYMSKDPTTQKLRTDLLNIIREKNLAHPVIQNFSYEVFQQKMLRFLESHLDDTEPY LLTMAKKALKSESAASSTMREEKHPEPVEKPLREPPSRQPQNPPATIGIRTLKAAFKALSTAQDSEAAFA KLDQKDLVLANLASPSSPAHKHKRPRKDEHESAAPAEGEGGSDRQPRNSPMTISRLLLEEDSQSTEPSPG

LNSSHKAMSASKPRALNQPHPGEKKPKYEDLLCRSLGAGWRAWLGLVLLP

TRTRPLEQKLISEEDLAANDILDYKDDDDK**V**

Tag: C-MYC/DDK
Predicted MW: 52.3 kDa

Concentration: >0.05 µg/µL as determined by microplate BCA method

Purity: > 80% as determined by SDS-PAGE and Coomassie blue staining

Buffer: 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

Note: For testing in cell culture applications, please filter before use. Note that you may experience

some loss of protein during the filtration process.

Storage: Store at -80°C after receiving vials.

Stability: Stable for 12 months from the date of receipt of the product under proper storage and handling

conditions. Avoid repeated freeze-thaw cycles.

RefSeq: NP 001076587

Locus ID: 21750





Terf2 (NM_001083118) Mouse Recombinant Protein - TP507518

UniProt ID: <u>035144</u>

RefSeq Size: 2477

Cytogenetics: 8 53.59 cM

RefSeq ORF: 1410 Synonyms: TRF2

Summary: Binds the telomeric double-stranded 5'-TTAGGG-3' repeat and plays a central role in telomere

maintenance and protection against end-to-end fusion of chromosomes. In addition to its telomeric DNA-binding role, required to recruit a number of factors and enzymes required for telomere protection, including the shelterin complex, TERF2IP/RAP1 and DCLRE1B/Apollo. Component of the shelterin complex (telosome) that is involved in the regulation of telomere length and protection. Shelterin associates with arrays of double-stranded 5'-TTAGGG-3' repeats added by telomerase and protects chromosome ends; without its protective activity, telomeres are no longer hidden from the DNA damage surveillance and chromosome ends are inappropriately processed by DNA repair pathways. Together with DCLRE1B/Apollo, plays a key role in telomeric loop (T loop) formation by generating 3' single-stranded overhang at the leading end telomeres: T loops have been proposed to protect chromosome ends from degradation and repair. Required both to recruit DCLRE1B/Apollo to telomeres and activate the exonuclease activity of DCLRE1B/Apollo. Preferentially binds to positive supercoiled DNA. Together with DCLRE1B/Apollo, required to control the amount of DNA topoisomerase (TOP1, TOP2A and TOP2B) needed for telomere replication during fork passage and prevent aberrant telomere topology. Recruits TERF2IP/RAP1 to telomeres, thereby participating in to repressing homologydirected repair (HDR), which can affect telomere length.[UniProtKB/Swiss-Prot Function]