

Product datasheet for **RN213408**

Tyrobp (NM_212525) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tyrobp (NM_212525) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Tyrobp
Synonyms:	Karap
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN213408 representing NM_212525 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGGCCCCAGAGCCCTCTGGTGCTTTCTGTTCTTCTGCTCCTGCTCCTGACTGTGGGAGGATTAAGTC
CCGTACAGGCCAGAGTGACAATTACCCAGGATGCGAATGTTCTCTGTGAGCCCGGTGTACTGGCTGG
GATTGTGCTGGGCGACTTGGTCTGACTCTGCTCATCGCCCTGGCGGTGACTCTCTGGGCCGCTGGTC
TCTCGAGGCCGAGGACTGCAGACGGGACCCGGAACAGCACATGGCTGAGACTGAGTCACCTTATCAGG
AGCTTCAGGGTCAGAGGCCAGAAGTATACAGTGACCTCAACACACAGAGGCAGTATTACAGAT**GA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	Sgfl-Mlul
ACCN:	NM_212525
Insert Size:	345 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).



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Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_212525.1](#), [NP_997690.1](#)

RefSeq Size: 545 bp

RefSeq ORF: 345 bp

Locus ID: 361537

UniProt ID: [Q6X9T7](#)

Cytogenetics: 1q21

Gene Summary: Adapter protein which non-covalently associates with activating receptors found on the surface of a variety of immune cells to mediate signaling and cell activation following ligand binding by the receptors (By similarity). TYROBP is tyrosine-phosphorylated in the ITAM domain following ligand binding by the associated receptors which leads to activation of additional tyrosine kinases and subsequent cell activation (By similarity). Also has an inhibitory role in some cells (By similarity). Non-covalently associates with activating receptors of the CD300 family to mediate cell activation (By similarity). Also mediates cell activation through association with activating receptors of the CD200R family (By similarity). Required for neutrophil activation mediated by integrin (By similarity). Required for the activation of myeloid cells mediated by the CLEC5A/MDL1 receptor (By similarity). Associates with natural killer (NK) cell receptors such as the KLRD1/KLRC2 heterodimer to mediate NK cell activation (By similarity). Associates with TREM1 to mediate activation of neutrophils and monocytes (By similarity). Associates with TREM2 on monocyte-derived dendritic cells to mediate up-regulation of chemokine receptor CCR7 and dendritic cell maturation and survival (By similarity). Association with TREM2 mediates cytokine-induced formation of multinucleated giant cells which are formed by the fusion of macrophages (By similarity). Stabilizes the TREM2 C-terminal fragment (TREM2-CTF) produced by TREM2 ectodomain shedding which suppresses the release of pro-inflammatory cytokines (By similarity). In microglia, required with TREM2 for phagocytosis of apoptotic neurons (By similarity). Required with ITGAM/CD11B in microglia to control production of microglial superoxide ions which promote the neuronal apoptosis that occurs during brain development (By similarity). Promotes proinflammatory responses in microglia following nerve injury which accelerates degeneration of injured neurons (By similarity). Positively regulates the expression of the IRAK3/IRAK-M kinase and IL10 production by liver dendritic cells and inhibits their T cell allostimulatory ability (By similarity). Negatively regulates B cell proliferation (By similarity). Required for CSF1-mediated osteoclast cytoskeletal organization (By similarity). Positively regulates multinucleation during osteoclast development (By similarity).[UniProtKB/Swiss-Prot Function]