

Product datasheet for **MR200474**

Tyrobp (NM_011662) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Tyrobp (NM_011662) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Tyrobp
Synonyms: DAP12; KARAP; Ly83
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR200474 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGGCTCTGGAGCCCTCCTGGTGCCTTCTGTTCCCTCCTGTCTCCTGACTGTGGGAGGATTAAGTC
 CCGTACAGGCCAGAGTGACACTTTCCAAGATGCGACTGTTCTTCCGTGAGCCCTGGTGTACTGGCTGG
 GATTGTTCTGGGTGACTTGGTGTGACTCTGCTGATTGCCCTGGCTGTACTCTCTGGCCGCTGGTC
 TCCCGAGGTCAAGGGACAGCGGAAGGGACCCGAAACAACACATTGCTGAGACTGAGTCGCCTTATCAGG
 AGCTTCAGGGTCAGAGACCAGAAGTATACAGTGACCTCAACACACAGAGGCAATATTACAGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR200474 protein sequence
 Red=Cloning site Green=Tags(s)
 MGALEPSWCLLFLPVLLTVGGLSPVQAQSDTFPRDCSSVSPGVLGIVLGDVLVLLIALAVYSLGRLV
 SRGQGTAEGRKQHIAETESPYQELQGRPEVYSDLNTRQRYR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI



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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_011662.3](#)

RefSeq Size: 586 bp

RefSeq ORF: 345 bp

Locus ID: 22177

UniProt ID: [O54885](#)

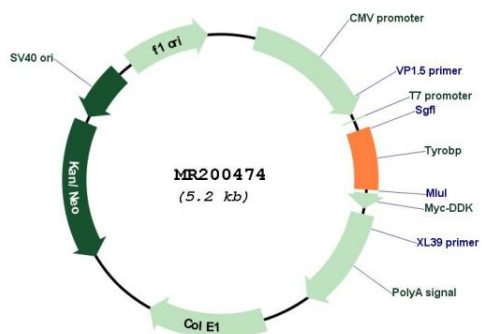
Cytogenetics: 7 17.45 cM

MW: 12.4 kDa

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 (PubMed:15471863, PubMed:9647200). 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 (PubMed:15728241). Also has an inhibitory role in some cells (PubMed:21727189). 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 (PubMed:15471863). Required for neutrophil activation mediated by integrin (PubMed:17086186). 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). Also associates non-covalently with the NK cell receptors KLRA4/LY49D and KLRA8/LY49H which leads to NK cell activation (PubMed:9647200). 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 (PubMed:18957693). Stabilizes the TREM2 C-terminal fragment (TREM2-CTF) which is produced by TREM2 ectodomain shedding (By similarity). In microglia, required with TREM2 for phagocytosis of apoptotic neurons (PubMed:15728241). Required with ITGAM/CD11B in microglia to control production of microglial superoxide ions which promote the neuronal apoptosis that occurs during brain development (PubMed:18685038). Promotes proinflammatory responses in microglia following nerve injury which accelerates degeneration of injured neurons (PubMed:25690660). Positively regulates the expression of the IRAK3/IRAK-M kinase and IL10 production by liver dendritic cells and inhibits their T cell allostimulatory ability (PubMed:21257958). Negatively regulates B cell proliferation (PubMed:21727189). Required for CSF1-mediated osteoclast cytoskeletal organization (PubMed:18691974). Positively regulates multinucleation during osteoclast development (PubMed:12569157, PubMed:14969392).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR200474