

Product datasheet for **TA385378**

TBK1 Rabbit Monoclonal Antibody [Clone ID: R05-2H7]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R05-2H7
Applications:	WB
Recommended Dilution:	WB: 1/1000
Reactivity:	Human, Hamster, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	Recombinant protein of human TBK1
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 84 kDa; Observed MW: 84 kDa
Gene Name:	TANK binding kinase 1
Database Link:	Entrez Gene 29110 Human Q9UHD2



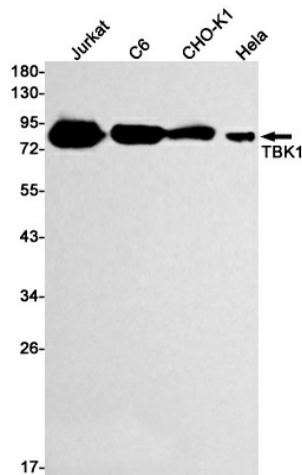
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Background:

Swiss-Prot Acc.Q9UHD2. Serine/threonine kinase that plays an essential role in regulating inflammatory responses to foreign agents. Following activation of toll-like receptors by viral or bacterial components, associates with TRAF3 and TANK and phosphorylates interferon regulatory factors (IRFs) IRF3 and IRF7 as well as DDX3X. This activity allows subsequent homodimerization and nuclear translocation of the IRFs leading to transcriptional activation of pro-inflammatory and antiviral genes including IFNA and IFNB. In order to establish such an antiviral state, TBK1 form several different complexes whose composition depends on the type of cell and cellular stimuli. Thus, several scaffolding molecules including FADD, TRADD, MAVS, AZI2, TANK or TBKBP1/SINTBAD can be recruited to the TBK1-containing-complexes. Under particular conditions, functions as a NF-kappa-B effector by phosphorylating NF-kappa-B inhibitor alpha/NFKBIA, IKBKB or RELA to translocate NF-Kappa-B to the nucleus. Restricts bacterial proliferation by phosphorylating the autophagy receptor OPTN/Optineurin on 'Ser-177', thus enhancing LC3 binding affinity and antibacterial autophagy (PubMed:21617041). Phosphorylates SMCR8 component of the C9orf72-SMCR8 complex, promoting autophagosome maturation (PubMed:27103069). Phosphorylates and activates AKT1 (PubMed:21464307). Seems to play a role in energy balance regulation by sustaining a state of chronic, low-grade inflammation in obesity, which leads to a negative impact on insulin sensitivity. Attenuates retroviral budding by phosphorylating the endosomal sorting complex required for transport-I (ESCRT-I) subunit VPS37C (PubMed:21270402). Phosphorylates Borna disease virus (BDV) P protein (PubMed:16155125).

Synonyms:

1200008B05Rik; AI462036; AW048562

Product images:

Western blot analysis of NAK/TBK1 in Jurkat, C6, CHO-K1, HeLa lysates using TBK1 antibody.