

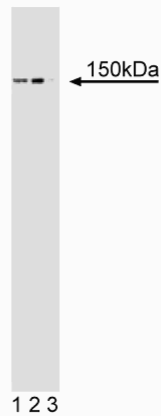
Technical Data Sheet

Purified Mouse Anti-TNIK**Product Information**

Material Number:	612250
Size:	50 µg
Concentration:	250 µg/ml
Clone:	53/TNIK
Immunogen:	Human TNIK aa. 522-644
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Rat, Mouse
Target MW:	150 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Ste20 is a *S. cerevisiae* Ser/Thr protein kinase that functions upstream of the MAP kinase module. Mammalian and yeast homologs of this kinase are divided into two classes based on their structure and regulation. Members of the first class (Ste20, Cla4, and p21-activated protein kinase) contain a C-terminal kinase domain, an N-terminal regulatory domain and a small GTPase Rac1/Cdc42 binding domain. Members of the second class lack the GTPase binding sites, but are similar to the former class throughout the catalytic domain. This second class includes germinal center kinase (GCK), HPK, KHS, KRS1 and 2, MST1, 2, and 3, NIK, SOK-1, and TNIK. Traf2- and NCK-interacting kinase (TNIK) is most homologous to another NCK-interacting kinase, NIK. TNIK contains an N-terminal kinase domain, and a C-terminal GCK homology (GCKH) domain. The mRNA of TNIK is expressed highest in heart, brain, and skeletal muscle. Overexpression of TNIK activates the JNK pathway, and leads to the disruption of F-actin structures and the inhibition of cell spreading. *In vitro*, TNIK can phosphorylate gelsolin. Thus, TNIK is a GCK family kinase that may regulate both the JNK pathway and cytoskeletal dynamics.



Western blot analysis of TNIK of 293 HEK lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of TNIK.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20°C.

Application Notes**Application**

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Fu CA, Shen M, Huang BC, Lasaga J, Payan DG, Luo Y. TNIK, a novel member of the germinal center kinase family that activates the c-Jun N-terminal kinase pathway and regulates the cytoskeleton. *J Biol Chem.* 1999; 274(43):30729-30737.(Biology)