Technical Data Sheet

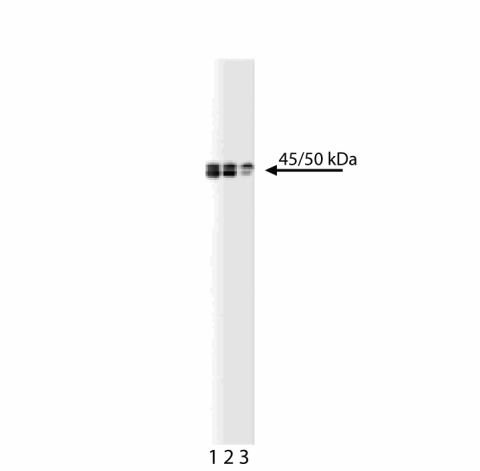
Purified Mouse Anti- TOK-1

Product Information

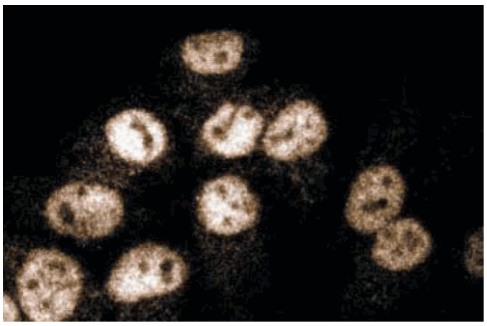
Material Number:	**612326**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	13/TOK-1
Immunogen:	Human TOK-1 aa. 139-260
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat
Target MW:	45/50 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Cell cycle progression is tightly regulated by the actions of cyclins and cyclin dependent kinases (Cdks). p21 forms a quaternary complex that includes Cyclin D, Cdk4, and PCNA, and is induced during p53-dependent and -independent responses to cellular stress. p21 promotes cell cycle arrest by preventing the phosphorylation and activation of Cdk. Although the Cdks are inhibited via direct interaction with the N-terminal region of p21, various other proteins bind the C-terminal region. TOK-1 is a p21 interacting protein that exists as 50 kDa (TOK-1α) and 45 kDa (TOK-1ß) isoforms. While both isoforms are primarily expressed in skeletal muscle, TOK-1ß is also expressed in a variety of other tissues, including placenta and pancreas. Although both isoforms localize to the nucleus, TOK-1α, not TOK-1ß, is coexpressed with p21 at the G1/S boundary and directly binds the C-terminal region of p21. TOK-1α has been shown to enhance the activity of p21,which inhibits the H1 kinase activity of Cdk2. In addition, the TOK proteins were identified as BCCIPα and BCCIPß, which are nuclear proteins that interact with BRCA2 and function in tumor suppression. Therefore, TOK-1 proteins may regulate cell cycle dynamics and cell transformation through a variety of protein-protein interactions.



Western blot analysis of TOK-1 on a HeLa cell lysate (Human cervical epitheloid carcinoma; ATCC CCL-2). *Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the Mouse Anti-TOK-1 antibody.*



Immunofluorescence staining of HeLa cells.

Preparation and Storage

Store undiluted at -20°C.

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

Application Notes

Application

Western blot	Routinely Tested

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611449	HeLa Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Liu J, Yuan Y, Huan J, Shen Z. Inhibition of breast and brain cancer cell growth by BCCIPalpha, an evolutionarily conserved nuclear protein that interacts with BRCA2. *Oncogene.* 2001; 20(3):336-345. (Biology)

Ono T, Kitaura H, Ugai H, et al. TOK-1, a novel p21Cip1-binding protein that cooperatively enhances p21-dependent inhibitory activity toward CDK2 kinase. *J Biol Chem.* 2000; 275(40):31145-31154. (Biology)