Technical Data Sheet

Purified Mouse Anti-GOK/Stim1

Product Information

Material Number:	**610954**
Alternate Name:	Stim1
Size:	50 µg
Concentration:	250 µg/ml
Clone:	44/GOK
Immunogen:	Human GOK aa. 25-139
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Rat Tested in Development: Human, Mouse
Target MW:	84 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The human chromosomal region 11p15 has undergone intense analysis because of its association with various malignancies. In particular, the band 11p15.5 contains genes associated with Wilms tumor, Beckwith-Weidemann syndrome, rhabdomyosarcoma, adrenocortical carcinoma, and lung, ovarian, and breast cancer. One such gene, GOK (Stim 1), was identified near the 5' end of the ribonucleotide reductase subunit 1 gene. Examination of the GOK primary amino acid sequence indicates that it is a typical transmembrane protein with an extracellular N-terminal domain and a cytosolic C-terminal domain. The protein is highly hydrophobic with only a short region of hydrophobicity that likely represents the transmembrane region. The C-terminal portion of GOK shares some small regions of homology with myosin (20% identity). This region of GOK consists of α-helices and is thought to adopt a coiled-coil conformation. Although GOK expression has no effect on the growth of certain breast cancer cell lines, it induces death in rhabdomyosarcoma cells. Thus, it is thought to be a recessive tumor suppressor in muscle cells, possibly by functioning as a receptor connected to an apoptotic signaling pathway.

Western blot analysis of GOK on rat liver lysate. *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-GOK antibody.*

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
Immunofluorescence	Tested During Development

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/**

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
611467	Rat Liver Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

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

Hu RJ, Lee MP, Connors TD. A 2.5-Mb transcript map of a tumor-suppressing subchromosomal transferable fragment from 11p15.5, and isolation and sequence analysis of three novel genes. *Genomics.* 1997; 46(1):9-17.(Biology)

Overall ML, Parker NJ, Scarcella DL, Smith PJ, Dziadek M. Murine Stim1 maps to distal chromosome 7 and is not imprinted. *Mamm Genome.* 1998; 9(8):657-659.(Biology)

Parker NJ, Begley CG, Smith PJ, Fox RM. Molecular cloning of a novel human gene (D11S4896E) at chromosomal region 11p15.5. *Genomics.* 1996; 37(2):253-256.(Biology)

Sabbioni S, Barbanti-Brodano G, Croce CM, Negrini M. GOK: a gene at 11p15 involved in rhabdomyosarcoma and rhabdoid tumor development. *Cancer Res.* 1997; 57(20):4493-4497.(Biology)