Technical Data Sheet

Purified Mouse Anti-DSIF

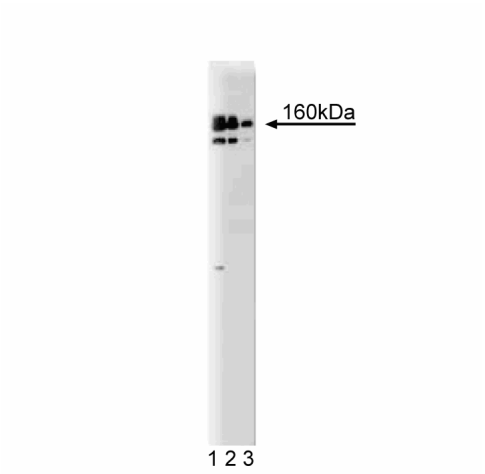
Product Information

Material Number:	**611106**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	17/DSIF
Immunogen:	Human DSIF aa. 866-985
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Dog, Mouse, Rat
Target MW:	160 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

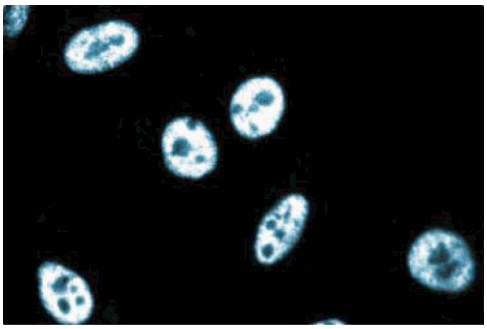
Description

In living systems, the relative amounts of any protein are controlled at many levels. For example, amounts are affected by protein degradation, regulation of the translational rates of polypeptide synthesis (translational regulation), and control of the rates of mRNA synthesis (transcriptional regulation). Transcriptional regulation involves modulation of the rate-limiting enzyme RNA polymerase. DSIF (DRB sensitivity-inducing factor) is a heterodimeric transcription elongation protein. It is composed of a large subunit of 160 kDa and a small subunit of 14 kDa. These large and the small subunits are homologs of the yeast gene products Stp5 and Stp4, respectively. Spt4 and 5 are transcription factors which are critically important for the activity of RNA polymerase. In conjunction with DRB, DSIF attenuates RNA polymerase II elongation steps. However, in limiting amounts of ribonucleotides, DSIF, by itself, stimulates the elongation rate of RNA polymerase II. Thus, the identification of a human regulator for transcriptional elongation will greatly enhance our understanding of this critical step in mammalian gene expression.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of DSIF on a HeLa lysate. *Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the anti- DSIF antibody.*



Immunoflouresence staining of human endothelial cells.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Suggested Companion Products

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

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

Kim YK, Bourgeois CF, Isel C, Churcher MJ, Karn J. Phosphorylation of the RNA polymerase II carboxyl-terminal domain by CDK9 is directly responsible for human immunodeficiency virus type 1 Tat-activated transcriptional elongation. *Mol Cell Biol.* 2002; 22(13):4622-4637.(Biology: Western blot)