Technical Data Sheet

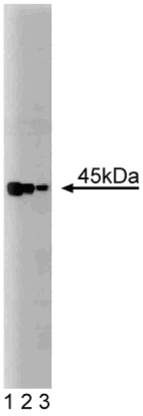
Purified Mouse Anti-p45/SUG1

Product Information

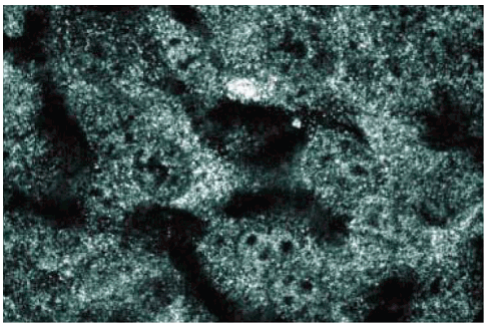
Material Number:	**611066**
Alternate Name:	SUG1
Size:	50 µg
Concentration:	250 µg/ml
Clone:	35/p45
Immunogen:	Human p45/SUG1 aa. 47-168
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Dog, Mouse, Rat
Target MW:	45 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The 26S proteasome, a eukaryotic ATP-dependent protease complex, is responsible for selective degradation of malformed proteins and certain short-lived proteins. The 26S proteasome complex consists of the 20S proteasome (multifunctional protease), which is the catalytic core, and an ATPase-containing P700 regulatory complex. This complex contains five highly related putative ATPases (TBP1, TBP7, S4, MSS1, p45) that belong to the ATPase family designated AAA (ATPases Associated with a variety of cellular Activities). They share a highly conserved 200 amino acid ATPase domain (AAA module) and participate in a range of cellular functions. p45 (Trip1, hSUG1) is the homolog of the *S. cerevisiae* and mouse SUG1 proteins. In a ligand-enhanced manner, mouse SUG1 interacts with a range of nuclear receptors via their AF-2 domains and yeast SUG1 functions as a transcription factor that mediates the transcriptional response of the GAL4 protein. p45 is thought to be their functional homolog. Thus, in addition to its participation in the P700 regulatory complex, p45 may function as a mammalian transcriptional modulator.



Western blot analysis of p45 on HepG2 lysate. *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of p45.*



HepG2

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	Tested During Development

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
611555	HepG2 Cell Lysate	500 µg	(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

Akiyama K, Yokota K, Kagawa S. cDNA cloning of a new putative ATPase subunit p45 of the human 26S proteasome, a homolog of yeast transcriptional factor Sug1p. *FEBS Lett.* 1995; 363(1-2):151-156.(Biology)

Fraser RA, Rossignol M, Heard DJ, Egly JM, Chambon P. SUG1, a putative transcriptional mediator and subunit of the PA700 proteasome regulatory complex, is a DNA helicase. *J Biol Chem.* 1997; 272(11):7122-7126.(Biology)

Makino Y, Yogosawa S, Kanemaki M. Structures of the rat proteasomal ATPases: determination of highly conserved structural motifs and rules for their spacing. *Biochem Biophys Res Commun.* 1996; 220(3):1049-1054.(Biology)