Technical Data Sheet Purified Mouse Anti- eIF-5

Product Information

Material Number:	611050	
Alternate Name:	Eukaryotic Initiation Factor-5	
Size:	50 µg	
Concentration:	250 μg/ml	
Clone:	20/EIF-5	
Immunogen:	Human eIF-5 aa. 100-215	
Isotype:	Mouse IgG1	
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat	
Target MW:	49-53 kDa	
Aqueous buffered solution containing BSA, glycerol, and ≤0.09 azide.		

Description

Initiation of eukaryotic translation involves a series of reactions mediated by multiple eukaryotic initiation factors (eIFs). As a prerequisite to initiation, the initiator methionyl-tRNA (Met-tRNAf), in a ternary complex with eIF-2 and GTP, binds to the 40S ribosomal subunit. This 40S preinitiation complex is positioned at the initiation AUG codon to form the 40S initiation complex. This complex is joined by the 60S ribosomal subunit to form the 80S initiation complex, which functions as a peptidyl transferase. The joining of the 60S subunit to the 40S initiation complex requires eIF-5. This protein associates with the 40S initiation complex, specifically with the β subunit of eIF-2, prior to binding of the 60S subunit. eIF-5 induces GTP hydrolysis of the ternary complex bound to the 40S ribosome. This results in the release of eIF-2 and GDP from the 40S subunit and allows for interaction with the 60S subunit. Furthermore, eIF-5 is thought to be involved in recognition of the start codon and interacts with eIF-3, an additional factor required for 40S initiation complex formation. Thus, eIF-5 is essential to the assembly and proper function of the eukaryotic machinery. eIF-5 has a calculated molecular weight of 49 kDa, but has been reported to migrate in a range between 49-53 kDa.





Western blot analysis of elF-5 on a HepG2 cell lysate (Human hepatocellular carcinoma; ATCC HB-8065). Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti- elF-5 antibody. Immunofluorescence staining of WI-38 cells (Human lung fibroblasts; ATCC CCL-75).

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

r	phration			
	Western blot	Routinely Tested		
	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
611555	HepG2 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. 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

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