Technical Data Sheet

Purified Mouse Anti-Drp1

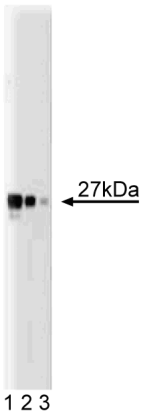
Product Information

Material Number:	**611738**
Alternate Name:	Density Regulated Protein-1
Size:	50 µg
Concentration:	250 µg/ml
Clone:	22/Drp1
Immunogen:	Human Drp1 aa. 19-201
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat, Dog
Target MW:	27 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

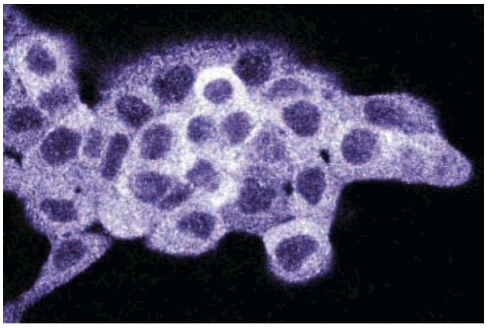
Description

In culture, cell density can have profound effects on gene expression, enzymatic activity, and cell signaling pathways. Using differential screening of cDNAs from low-passage nontumorigenic teratocarcinoma cells versus high passage tumorigenic cells, a protein was identified that is regulated in cell-density dependent manner. This protein, density-regulated protein 1 (drp1), contains putative sites for N-myristoylation and phosphorylation sites for cAMP and/or cGMP-dependent kinase, casein kinase II, and PKC. The expression of drp1 is enriched in high density cultures of both nontumorigenic and tumorigenic cell lines and is widely detected in adult organs, especially skeletal and cardiac muscle. In addition, increased expression of drp1 is not due to growth arrest as a result of serum starvation or TGF-β treatment nor is it a result of factors found in the media of high density cultures. Interestingly, drp1 is expressed highest in skeletal and cardiac muscle where unique cell-cell contacts are involved in muscle cell membrane depolarization and contraction. Thus, drp1 expression may be regulated by signaling pathways related to specific types of cell-cell contacts.

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 Drp1 on a HCT-8 cell lysate (Human colorectal adenocarcinoma; ATCC CCL-244). *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the mouse anti-Drp1 antibody.*



Immunofluorescence staining on A431 cells (Human epithelial carcinoma; ATCC CRL-1555).

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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

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
611474	HCT-8 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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.

References

Deyo JE, Chiao PJ, Tainsky MA. drp, a novel protein expressed at high cell density but not during growth arrest. *DNA Cell Biol.* 1998; 17(5):437-447.(Biology)

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