

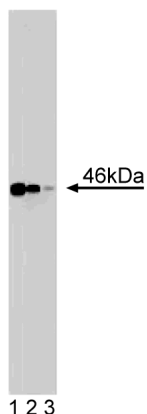
Technical Data Sheet

Purified Mouse Anti-mEPHX**Product Information**

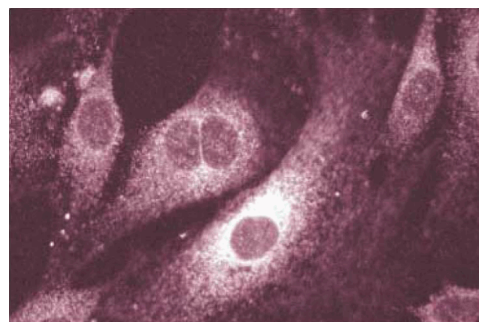
Material Number:	611372
Alternate Name:	Microsomal Epoxide Hydrolase; mEH; EPHX
Size:	50 µg
Concentration:	250 µg/ml
Clone:	17/mEPHX
Immunogen:	Human mEPHX aa. 13-125
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat, Chicken, Frog
Target MW:	46 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Microsomal epoxide hydrolase (mEPHX/mEH/EPHX) is a bifunctional membrane protein that plays a role in the metabolism of reactive epoxide intermediates and in hepatocyte uptake of bile acids. mEPHX protein and nucleic acid sequence is evolutionarily conserved in human, rats, and rabbits and mEPHX protein expression is found in the embryo and multiple organs. Cellular expression of mEPHX has been localized to both the ER and sinusoidal plasma membrane. In the ER, mEPHX is expressed in two topological orientations. The type I orientated (Cyt/Nexo) mEPHX remains in the ER, while the type II orientated (Cexo/Ncyto) mEPHX is localized to the plasma membrane. mEPHX metabolizes DMBA to both inert metabolites and metabolites that are electrophilic and possibly carcinogenic. mEPHX null-mice have been shown to be highly resistant to DMBA-induced carcinogenesis using skin cancer bioassays. Thus, mEPHX may have protective effects, such as bile acid uptake and reactive epoxide metabolism, as well as harmful effects related to the production of carcinogens.



Western blot analysis of mEPHX on a WI-38 cell lysate
(Human lung fibroblasts; ATCC CCL-75). Lane 1:
1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse
anti-mEPHX antibody.



Immunofluorescence staining of NIH/3T3 cells
(Mouse embryo fibroblast cells; ATCC CRL-1658).

Preparation and Storage

Store undiluted at -20° C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

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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
611476	WI-38 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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Miyata M, Kudo G, Lee YH, Yang TJ. Targeted disruption of the microsomal epoxide hydrolase gene. Microsomal epoxide hydrolase is required for the carcinogenic activity of 7,12-dimethylbenz[*a*]anthracene. *J Biol Chem.* 1999; 274(34):23963-23968.(Biology)

Zhu Q, von Dippe P, Xing W, Levy D. Membrane topology and cell surface targeting of microsomal epoxide hydrolase. Evidence for multiple topological orientations. *J Biol Chem.* 1999; 274(39):27898-27904.(Biology)