

## EBPL (C-16): sc-84093

### BACKGROUND

EBPL (emopamil-binding protein-like), also known as EBRP or ERP, exists as 5 alternatively spliced isoforms with the largest being 206 amino acids in length. EBPL is expressed as a homodimer with high levels found in liver, lung and kidney. As a transmembrane protein embedded on the endoplasmic reticulum, EBPL may function as a cholesterol  $\delta$ -isomerase. The gene encoding EBPL is found on human chromosome 13. Comprising nearly 4% of the human genome, chromosome 13 contains around 114 million base pairs and encodes over 400 genes. Chromosome 13 houses key tumor suppressor genes, including BRCA2 and RB1, which are associated with breast cancer susceptibility and retinoblastoma, respectively. Trisomy 13, also known as Patau syndrome, is deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

### REFERENCES

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2. Moebius, F.F., et al. 1998. Pharmacological analysis of sterol  $\delta\delta$ - $\delta\gamma$  isomerase proteins with [3H]ifenprodil. *Mol. Pharmacol.* 54: 591-598.
3. Grebenok, R.J., et al. 1998. Isolation and characterization of an *Arabidopsis thaliana* C-8,7 sterol isomerase: functional and structural similarities to mammalian C-8,7 sterol isomerase/emopamil-binding protein. *Plant Mol. Biol.* 38: 807-815.
4. König, A., et al. 2000. Mutations in the NSDHL gene, encoding a  $3\beta$ -hydroxysteroid dehydrogenase, cause CHILD syndrome. *Am. J. Med. Genet.* 90: 339-346.
5. Bae, S., et al. 2001. Cholesterol biosynthesis from lanosterol: molecular cloning, chromosomal localization, functional expression and liver-specific gene regulation of rat sterol  $\delta\delta$ -isomerase, a cholesterologenic enzyme with multiple functions. *Biochem. J.* 353: 689-699.
6. Moebius, F.F., et al. 2003. Cloning of an emopamil-binding protein (EBP)-like protein that lacks sterol  $\delta\delta$ - $\delta\gamma$  isomerase activity. *Biochem. J.* 374: 229-237.
7. Mattjus, P. 2009. Glycolipid transfer proteins and membrane interaction. *Biochim. Biophys. Acta* 1788: 267-272.

### CHROMOSOMAL LOCATION

Genetic locus: EBPL (human) mapping to 13q14.3.

### SOURCE

EBPL (C-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of EBPL of human origin.

### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84093 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

EBPL (C-16) is recommended for detection of EBPL of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for EBPL siRNA (h): sc-105318, EBPL shRNA Plasmid (h): sc-105318-SH and EBPL shRNA (h) Lentiviral Particles: sc-105318-V.

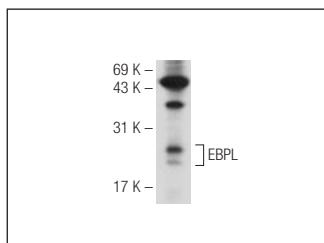
Molecular Weight of EBPL: 23 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### DATA



EBPL (C-16): sc-84093. Western blot analysis of EBPL expression in K-562 whole cell lysate.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.