

## EF-HB (D-16): sc-99873

### BACKGROUND

The EF-hand domain is a twelve amino acid loop motif that is commonly found in proteins that participate in calcium-binding events within the cell. EF-hand domains generally exist in a pair that, together, form a stable four-helix bundle that enables the binding of calcium ions. EF-HB (EF-hand domain-containing family member B) is a 831 amino acid protein that contains 2 EF-hand domains, suggesting a role in calcium-mediated events throughout the cell. There are three isoforms of EF-HB that are produced as a result of alternative splicing events. The gene encoding EF-HB is located on human chromosome three, which is made up of about 214 million bases encoding over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Other well-studied calcium binding proteins that contain EF-hand motifs include calmodulin (CaM), Troponin C, myosin regulatory light chain (MYL) and S-100 proteins.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: EFHB (human) mapping to 3p24.3; Efhb (mouse) mapping to 17 C.

### SOURCE

EF-HB (D-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of EF-HB of human origin.

### PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99873 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

EF-HB (D-16) is recommended for detection of EF-HB of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other EF-H family members.

EF-HB (D-16) is also recommended for detection of EF-HB in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for EF-HB siRNA (h): sc-78060, EF-HB siRNA (m): sc-143310, EF-HB shRNA Plasmid (h): sc-78060-SH, EF-HB shRNA Plasmid (m): sc-143310-SH, EF-HB shRNA (h) Lentiviral Particles: sc-78060-V and EF-HB shRNA (m) Lentiviral Particles: sc-143310-V.

Molecular Weight of EF-HB: 94 kDa.

### 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) 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.

### STORAGE

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

### 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.