

# EphB6 (D-7): sc-398795

## BACKGROUND

The Eph subfamily represents the largest group of receptor protein tyrosine kinases identified to date. While the biological activities of these receptors have yet to be determined, there is increasing evidence that they are involved in central nervous system function and in development. The Eph subfamily receptors of human origin (and their murine/avian homologs) include EphA1 (Eph), EphA2 (Eck), EphA3 (Hek4), EphA4 (Hek8), EphA5 (Hek7), EphA6 (Hek12), EphA7 (Hek11/MDK1), EphA8 (Hek3), EphB1 (Hek6), EphB2 (Hek5), EphB3 (Cek10, Hek2), EphB4 (Htk), EphB5 (Hek9) and EphB6 (Mep). Ligands for Eph receptors include ephrin-A4 (LERK-4) which binds EphA3 and EphB1. In addition, ephrin-A2 (ELF-1) has been described as the ligand for EphA4, ephrin-A3 (Ehk1-L) as the ligand for EphA5 and ephrin-B2 (Htk-L) as the ligand for EphB4 (Htk).

## CHROMOSOMAL LOCATION

Genetic locus: EPHB6 (human) mapping to 7q34; Ephb6 (mouse) mapping to 6 B2.1.

## SOURCE

EphB6 (D-7) is a mouse monoclonal antibody raised against amino acids 24-113 mapping near the N-terminus of EphB6 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EphB6 (D-7) is available conjugated to agarose (sc-398795 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398795 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398795 PE), fluorescein (sc-398795 FITC), Alexa Fluor<sup>®</sup> 488 (sc-398795 AF488), Alexa Fluor<sup>®</sup> 546 (sc-398795 AF546), Alexa Fluor<sup>®</sup> 594 (sc-398795 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-398795 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-398795 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-398795 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

EphB6 (D-7) is recommended for detection of EphB6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 EphB6 siRNA (h): sc-39957, EphB6 siRNA (m): sc-39958, EphB6 shRNA Plasmid (h): sc-39957-SH, EphB6 shRNA Plasmid (m): sc-39958-SH, EphB6 shRNA (h) Lentiviral Particles: sc-39957-V and EphB6 shRNA (m) Lentiviral Particles: sc-39958-V.

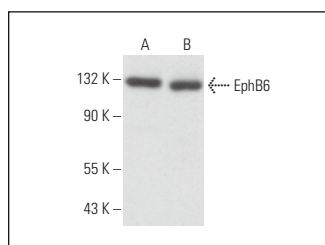
Molecular Weight of EphB6: 110 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, COLO 205 whole cell lysate: sc-364177 or PC-12 cell lysate: sc-2250.

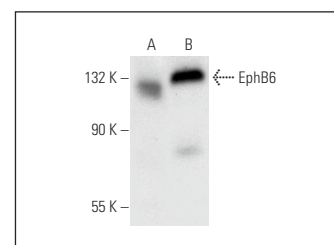
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



EphB6 (D-7): sc-398795. Western blot analysis of EphB6 expression in Jurkat (A) and COLO 205 (B) whole cell lysates.



EphB6 (D-7): sc-398795. Western blot analysis of EphB6 expression in PC-12 (A) and Jurkat (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Silva, A.M., et al. 2018. Profiling the circulating miRnome reveals a temporal regulation of the bone injury response. *Theranostics* 8: 3902-3917.
- Wu, J.E., et al. 2020. DNA methylation maintains the CLDN1-EPHB6-SLUG axis to enhance chemotherapeutic efficacy and inhibit lung cancer progression. *Theranostics* 10: 8903-8923.
- Hanover, G., et al. 2023. Integration of cancer-related genetic landscape of Eph receptors and ephrins with proteomics identifies a crosstalk between EPHB6 and EGFR. *Cell Rep.* 42: 112670.

## 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) for detailed protocols and support products.