

E6BP (30): sc-293069

BACKGROUND

E6BP (reticulocalbin 2, EF-hand calcium binding domain), also known as Rcn2, reticulocalbin-2, TCBP-49, taipoxin-associated calcium-binding protein 49, Erc55 or calcium-binding protein ERC-55, is a 320 amino acid protein with a high affinity for calcium that belongs to the CREC family. Encoded by a gene that maps to human chromosome 15q24.3, E6BP binds calcium ions and the presynaptic snake venom toxin taipoxin and may interact with internalized taipoxin, possibly mediating its activation. E6BP is expressed in rat brain, cerebellum, heart, liver, kidney, skeletal muscle and testis cells. Although E6BP is homologous to other known S100 proteins and EF-hand proteins, such as calmodulin and calbindin, homology is limited to the EF-hand domain. E6BP is also homologous to an identified mouse ER (endoplasmic reticulum) calcium binding protein, reticulocalbin, where homology is not restricted to the EF-hand domain. E6BP is not an abundant protein, which suggests that it is not a reticular calcium storage protein. E6BP is believed to share a general E6-binding motif with E6-AP, which binds cancer-related papillomaviral E6 proteins.

REFERENCES

1. Dodds, D., et al. 1995. Novel reticular calcium binding protein is purified on taipoxin columns. *J. Neurochem.* 64: 2339-2344.
2. Be, X., et al. 2001. Solution structure determination and mutational analysis of the papillomavirus E6 interacting peptide of E6AP. *Biochemistry* 40: 1293-1299.

CHROMOSOMAL LOCATION

Genetic locus: RCN2 (human) mapping to 15q24.3; Rcn2 (mouse) mapping to 9 B.

SOURCE

E6BP (30) is a mouse monoclonal antibody raised against amino acids 27-146 of reticulocalbin-2 of rat origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-293069 X, 200 µg/0.1 ml.

E6BP (30) is available conjugated to agarose (sc-293069 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-293069 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-293069 PE), fluorescein (sc-293069 FITC), Alexa Fluor® 488 (sc-293069 AF488), Alexa Fluor® 594 (sc-293069 AF594) or Alexa Fluor® 647 (sc-293069 AF647), 200 µg/ml, for IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-293069 AF680) or Alexa Fluor® 790 (sc-293069 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

E6BP (30) is recommended for detection of E6BP of human origin and reticulocalbin-2 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for E6BP siRNA (h): sc-62247, reticulocalbin-2 siRNA (m): sc-62248, E6BP shRNA Plasmid (h): sc-62247-SH, reticulocalbin-2 shRNA Plasmid (m): sc-62248-SH, E6BP shRNA (h) Lentiviral Particles: sc-62247-V and reticulocalbin-2 shRNA (m) Lentiviral Particles: sc-62248-V.

E6BP (30) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

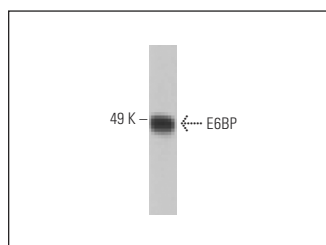
Molecular Weight of E6BP: 49 kDa.

Positive Controls: rat brain extract: sc-2392 or SH-SY5Y cell lysate: sc-3812.

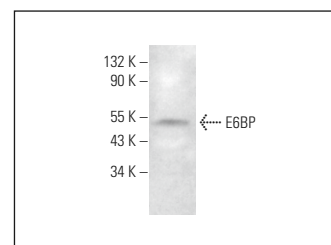
RECOMMENDED SUPPORT REAGENTS

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™ Molecular Weight Standards: sc-2035, UltraCruz® 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® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



E6BP (30): sc-293069. Western blot analysis of E6BP expression in rat brain tissue extract.



E6BP (30): sc-293069. Western blot analysis of E6BP expression in U-251-MG whole cell lysate.

SELECT PRODUCT CITATIONS

1. Ghaly, M., et al. 2023. Novel role of HIV-1 Nef in regulating the ubiquitination of cellular proteins. *Front. Cell. Infect. Microbiol.* 13: 1106591.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.