BCMA (D-6): sc-390147

BACKGROUND

The B cell maturation protein (BCMA), also designated BCM and tumor necrosis factor receptor superfamily, member 17, is a type I integral membrane protein located on chromosome band 16p13.1 that belongs to the tumor necrosis factor receptor (TNF-R) superfamily. It is expressed as a 184 amino acid peptide that is expressed only in mature B lymphocytes and is located on the cis part of the Golgi apparatus. BCMA shares significant homology with TACI (transmembrane activator) within the cysteine-rich domain. TACI has been shown to bind CAML, which induces activation of NFAT (nuclear factor of activated T cells). Both BCMA and TACI have been shown to bind APRIL and TALL-1, which stimulate B cell proliferation in conjunction with other B-cell activators. When overexpressed, TALL-1 stimulates the development of systemic lupus erythematosus (SLE).

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: TNFRSF17 (human) mapping to 16p13.13; Tnfrsf17 (mouse) chromosome band 16p13.1 that belongs to the tumor necrosis factor receptor superfamily, member 17, is a type I integral membrane protein located on chromosome band 16p13.1 that belongs to the tumor necrosis factor receptor (TNF-R) superfamily. It is expressed as a 184 amino acid peptide that is expressed only in mature B lymphocytes and is located on the cis part of the Golgi apparatus. BCMA shares significant homology with TACI (transmembrane activator) within the cysteine-rich domain. TACI has been shown to bind CAML, which induces activation of NFAT (nuclear factor of activated T cells). Both BCMA and TACI have been shown to bind APRIL and TALL-1, which stimulate B cell proliferation in conjunction with other B-cell activators. When overexpressed, TALL-1 stimulates the development of systemic lupus erythematosus (SLE).

SOURCE

BCMA (D-6) is a mouse monoclonal antibody raised against amino acids 108-161 mapping within an internal region of BCMA of human origin.

PRODUCT

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BCMA (D-6) is available conjugated to agarose (sc-390147 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390147 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycocyanin (sc-390147 PE), fluorescein (sc-390147 FITC), Alexa Fluor® 488 (sc-390147 AF488), Alexa Fluor® 546 (sc-390147 AF546), Alexa Fluor® 594 (sc-390147 AF594) or Alexa Fluor® 647 (sc-390147 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390147 AF680) or Alexa Fluor® 790 (sc-390147 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

BCMA (D-6) is recommended for detection of BCMA 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 BCMA siRNA (h): sc-40233, BCMA siRNA (m): sc-40234, BCMA shRNA Plasmid (h): sc-40233-SH, BCMA shRNA Plasmid (m): sc-40234-SH, BCMA shRNA (h) Lentiviral Particles: sc-40233-V and BCMA shRNA (m) Lentiviral Particles: sc-40234-V.

Molecular Weight of BCMA: 20 kDa.

Positive Controls: MM-142 cell lysate: sc-2246, NAMALWA cell lysate: sc-2234 or NCI-H929 whole cell lysate: sc-364786.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG1 HRP: sc-516102 or m-IgG1 HRP-BP (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-IgG1 BP-FITC: sc-516140 or m-IgG1 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

SELECT PRODUCT CITATIONS


RESEARCH USE

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