Anti-BCMA Antibody

Catalog: 101219

Lot: 211020

Product Information

Description: This anti-BCMA antibody is a purified, biotinylated, recombinant human monoclonal antibody which recognizes the human BCMA protein. BCMA is also known as tumor necrosis factor receptor superfamily member 17 (TNFRSF17) and is expressed on the surface of plasma cells. BCMA is important for plasma cell differentiation and B cell proliferation. BCMA is a validated therapeutic target in multiple myeloma. The first anti-BCMA CAR-T cell therapy (idecabt agene vicleucel) was approved by the FDA in 2021.

This antibody has been tested for specific binding to purified human BCMA protein (BPS Bioscience #79467) in an ELISA binding assay with colorimetric detection.

Concentration: 1.0 mg/ml
Species: Human
Isotype: IgG1
Formulated In: 8 mM phosphate, pH 7.4, 110 mM NaCl, 2.2 mM KCl, 20% glycerol
Expression System: HEK293
Clonality: Monoclonal
Purification: Protein A affinity chromatography from HEK293 supernatants
Cross Reactivity: This antibody recognizes human BCMA. It has not been tested with other species.
Format: Aqueous buffer solution
Stability: At least 12 months at -80°C. Avoid freeze/thaw cycles.
Storage: -80°C
MW: ~146 kDa (Anti-BCMA HC: 50 kDa; Anti-BCMA LC: 23 kDa)
Purity: ≥90%
Assay Conditions: Experimental design and assay protocol for measuring anti-BCMA specific binding to human BCMA in an ELISA assay:

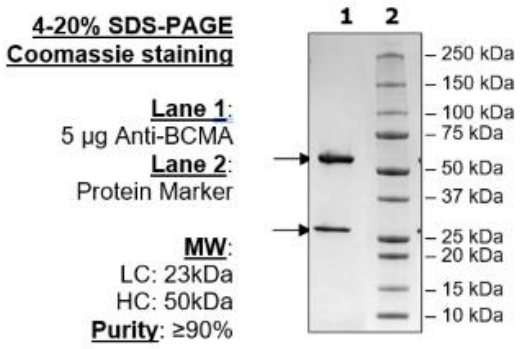
1. Purified anti-BCMA (cat#101219) was thawed on ice and coated onto a clear 96-well plate overnight at 4°C (1 µg/ml in PBS, 50 µl per well). *** "No Coat" controls and "Blank" wells were included by coating PBS only to determine background levels****
2. The coated wells were washed three times with 150 µl of BPS Immuno Buffer 1.
3. Wells were blocked with 100 µl of Blocking Buffer 2 (BPS Bioscience, #79728) per well for 1 hour at room temperature with slow shaking.
4. Serial dilutions of purified human biotin-labeled BCMA protein (BPS Bioscience, #79467) were prepared in Blocking Buffer 2 (Titration from 0 nM to 100 nM, using 50 µl per well)
5. At the end of the blocking step, 50 µl of biotinylated-BCMA dilutions was added to appropriate wells and incubated for 1 hour at room temperature with slow shaking
   Wells designated as "BLANK" were skipped*
6. Wells were then washed as in step 2
7. An additional blocking step was performed with 100 µl of Blocking Buffer 2 at room temperature on the benchtop. The wells were then decanted and tapped to dry.

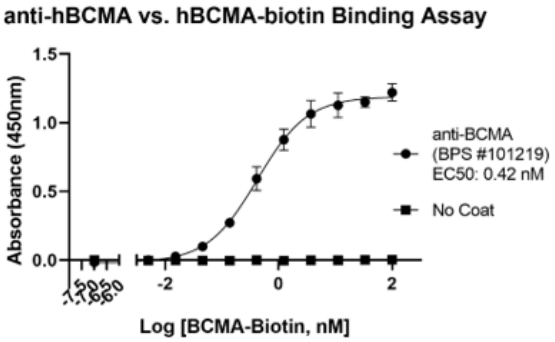
8. Streptavidin-HRP was prepared in 1x Blocking Buffer 2 and 50 µl was added to each well immediately after the blocking buffer was decanted, and incubated for 1 hour at room temperature with slow shaking.
9. Wells were then washed as in step 2
10. 100 µl of Colorimetric HRP Substrate (BPS Bioscience #79651) was added to all wells. Samples were allowed to develop color until positive control wells became blue (typically between 30 seconds to 5 minutes).
11. The reaction was quickly quenched with an equal volume (100 µl) of 1N HCl.
12. Absorbance was read at 450 nm. The "blank" value was subtracted from all other measurements.

Applications: This product is for research use only. It is not suitable for human, diagnostic, or therapeutic use.

Quality Control Data

4-20% SDS-Page Coomassie Staining





This binding assay was performed following the assay conditions detailed above. Anti-BCMA was coated at 1 µg/ml overnight. A "No Coat" control was included to determine the background levels and was coated with PBS only