SANTA CRUZ BIOTECHNOLOGY, INC.

Cruz Tag 09™ (CZ-A): sc-8053

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Plasmid vectors are commonly used for the expression of hybrid fusion proteins, encoding a protein of interest fused to an epitope tag. Antibodies specific for such fusion protein tags are useful for monitoring expression of the protein of interest, both in cells and in Western blot analysis. Such epitope tags in common use include Myc, GST, His, HA and GFP. Santa Cruz Biotechnology introduces a novel series of epitope tags, called the Cruz Tags. The Cruz Tag epitope tags are encoded by the pCruz mammalian expression vectors, a group of unique and effective vectors suitable for the production of recombinant tagged fusion proteins. Each pCruz expression vector encodes a unique, 12 amino acid Cruz Tag epitope sequence. Anti-Cruz Tag antibodies are suitable for detection and immunoprecipitation of recombinant fusion proteins containing the respective Cruz Tag.

SOURCE

Cruz Tag 09™ (CZ-A) is a mouse monoclonal antibody specific for an epitope corresponding to the CruzTag 09™ peptide domain of the pCruz 09™ mammalian expression vector.

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.

Cruz Tag 09™ (CZ-A) is available conjugated to agarose (sc-8053 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8053 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-8053 PE), fluorescein (sc-8053 FITC), Alexa Fluor® 488 (sc-8053 AF488), Alexa Fluor® 546 (sc-8053 AF546), Alexa Fluor® 594 (sc-8053 AF594) or Alexa Fluor® 647 (sc-8053 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-8053 AF680) or Alexa Fluor® 790 (sc-8053 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-8053 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Cruz Tag 09™ (CZ-A) is recommended for detection of fusion proteins encoded by the pCruz 41™ mammalian expression vector of mammalian 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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).

pCRUZ™ FEATURES

- Series of mammalian expression vectors
- Cytomegalovirus (CMV) mammalian expression promoter
- Amino terminal fusion protein tag
- Choice of eight fusion protein tags
- Flexible multiple cloning site
- Poly A signal
- Neomycin resistance gene for selection in stable mammalian expression systems
- Kanamycin resistance gene for selection in *E. coli*
- Origin of replication for growth in *E. coli*
- Three reading frames provided, A, B and C, at 20 µg each, to allow sub-cloning in-frame with the amino terminal fusion protein tag
- pCruz vector with Lac Z insert provided as a positive control
- Broad selection of monoclonal and polyclonal antibodies available for detection of fusion proteins and fusion protein tags
- Agarose conjugated antibodies available for immunoprecipitation studies

pCRUZ™ EXPRESSION VECTORS

PRODUCT	CAT. #	FUSION PROTEIN TAG	AMOUNT
pCruz 09™	sc-5040	Cruz Tag 09™	20 µg each
pCruz 22™	sc-5041	Cruz Tag 22™	20 µg each
pCruz 41™	sc-5042	Cruz Tag 41™	20 µg each

Immunoprecipitation agarose conjugates are pre-blocked with protein stabilizer to reduce non-specific immunoglobulin binding and are provided at a concentration (0.5 ml agarose/2.0 ml) suitable for use at 20 µl per immunoprecipitation reaction. Number of reactions: 100.

SELECT PRODUCT CITATIONS

1. Zeng, X., et al. 2005. A dual-kinase mechanism for Wnt co-receptor phosphorylation and activation. Nature 438: 873-877.
2. MacDonald, B.T., et al. 2008. Wnt signal amplification via activity, cooperativity, and regulation of multiple intracellular PPPSP motifs in the Wnt co-receptor LRP6. J. Biol. Chem. 283: 16115-16123.

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 for detailed protocols and support products.