SANTA CRUZ BIOTECHNOLOGY, INC.

TAG-72 (CC49): sc-20043

BACKGROUND

Tumor-associated glycoprotein 72 (TAG-72) is a high molecular weight glycoprotein that localizes to the cytoplasm and cell membrane of malignant cells. TAG-72 is expressed by 80% of colorectal carcinomas but is rarely expressed in normal epithelium and benign diseases. In addition, TAG-72 is highly ex-pressed by low-grade mucoepidermoid carcinomas but is absent in pure squamous cell mucoepidermoid carcinomas. With the exception of secretory endometrium, TAG-72 expression is weak or nondetectable in normal adult tissues. TAG-72 is expressed by several gynecologic malignancies including common epithelial ovarian carcinomas and endometrial carcinomas. In human prostatic adenocarcinomas, TAG-72 expression negatively correlates with the Gleason grade of differentiation. TAG-72 is expressed by the majority of gastric, esophageal, pancreatic and non-small cell lung carcinomas. Finally, TAG-72 is useful for purifying primary ovarian cancer cells from patient ascites.

REFERENCES

1. Thor, A., et al. 1986. Distribution of oncofetal antigen tumor-associated glycoprotein-72 defined by monoclonal antibody B72.3. Cancer Res. 46: 3118-3124.
2. Simpson, J. and Schlom, J. 1988. The use of monoclonal antibody B72.3 in the management of gynecologic malignancies. Yale J. Biol. Med. 61: 351-366.

SOURCE

TAG-72 (CC49) is a mouse monoclonal antibody raised against purified TAG-72 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TAG-72 (CC49) is available conjugated to agarose (sc-20043 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-20043 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-20043 PE), fluorescein (sc-20043 FITC), Alexa Fluor® 488 (sc-20043 AF488), Alexa Fluor® 546 (sc-20043 AF546), Alexa Fluor® 594 (sc-20043 AF594) or Alexa Fluor® 647 (sc-20043 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-20043 AF680) or Alexa Fluor® 790 (sc-20043 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TAG-72 (CC49) is recommended for detection of TAG-72 of broad species 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

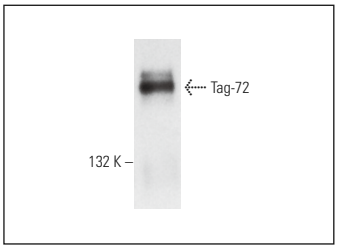
Molecular Weight of TAG-72: 220 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Tag-72 (CC49): sc-20043. Western blot analysis of Tag-72 expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

1. Wang, D., et al. 2012. A preliminary study on the expression of tumor-associated glycoprotein-72 in human gliomas. Med. Oncol. 29: 2027-2031.
2. Zhang, Y., et al. 2012. Tumor associated glycoprotein-72 is a novel marker for poor survival in hepatocellular carcinoma. Pathol. Oncol. Res. 18: 911-916.
3. Prendergast, J.M., et al. 2017. Novel anti-sialyl-Tn monoclonal antibodies and antibody-drug conjugates demonstrate tumor specificity and anti-tumor activity. MAbs 9: 615-627.
4. Evtimov, V.J., et al. 2024. Targeting TAG-72 in cutaneous T cell lymphoma. Heliyon 10: e36298.

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.