SANTA CRUZ BIOTECHNOLOGY, INC.

Blood Group H2 (BRIC231): sc-59467

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Blood-group antigens are generally defined as molecules formed by sequential addition of saccharides to the carbohydrate side chains of lipids and proteins detected on erythrocytes and certain epithelial cells. The A, B and H antigens are reported to undergo modulation during malignant cellular transformation. Blood group related antigens are usually mucin-type and are detected on erythrocytes, certain epithelial cells and in secretions of certain individuals. 16 genetically and biosynthetically distinct but inter-related specificities belong to this group of antigens, including A (1 and 2), B, H (1 and 2), M, N, Lewis A, Lewis B, Lewis X, Lewis Y and precursor type 1 chain antigens. The expressions of the H1 and H2 in different cell types are controlled by different genes. Blood Group H1 (O) is a member of a group of murine monoclonal antibodies that detects blood group specificities of the ABH and Lewis systems.

REFERENCES

1. Anger, B.R., et al. 1982. Mouse monoclonal IgM antibody against human lung cancer line SK-LC-3 with specificity for H(O) blood group antigen. Hybridoma 1: 139-147.
2. Lloyd, K.O., et al. 1983. Mouse monoclonal antibody F-3 recognizes the difucosyl type-2 blood group structure. Immunogenetics 17: 537-541.

SOURCE

Blood Group H2 (BRIC231) is a mouse monoclonal antibody raised against HEL erythroleukemia cells 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.

Blood Group H2 (BRIC231) is available conjugated to agarose (sc-59467 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-59467 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-59467 PE), fluorescein (sc-59467 FITC), Alexa Fluor® 488 (sc-59467 AF488), Alexa Fluor® 546 (sc-59467 AF546), Alexa Fluor® 594 (sc-59467 AF594) or Alexa Fluor® 647 (sc-59467 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-59467 AF680) or Alexa Fluor® 790 (sc-59467 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

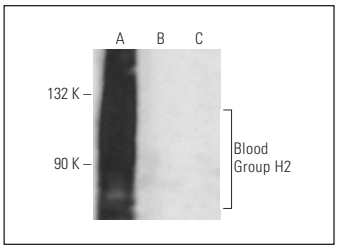
Blood Group H2 (BRIC231) is recommended for detection of Blood Group H2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10^6 cells); non cross-reactive with Oh (Bombay) and may cross-react weakly with A1 erythrocytes.

Positive Controls: HEL 92.1.7 cell lysate: sc-2270, HL-60 whole cell lysate: sc-2209 or MOLT-4 cell lysate: sc-2233.

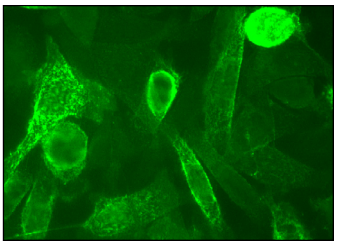
RECOMMENDED SUPPORT REAGENTS

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).

DATA



Blood Group H2 (BRIC231): sc-59467. Western blot analysis of Blood Group H2 expression in HEL 92.1.7 (**A**), HL-60 (**B**) and MOLT-4 (**C**) whole cell lysates.



Blood Group H2 (BRIC231) Alexa Fluor® 488: sc-59467 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing membrane localization. Blocked with UltraCruz® Blocking Reagent: sc-516214.

SELECT PRODUCT CITATIONS

1. Dong, H., et al. 2012. Bidirectional encroachment of collagen into the tunica media in cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy. Brain Res. 1456: 64-71.
2. Wang, M.M., et al. 2013. ABO blood antigens define human cerebral endothelial diversity. Neuroreport 24: 79-83.
3. Lee, S.J., et al. 2014. Vascular accumulation of the small leucine-rich proteoglycan decorin in CADASIL. Neuroreport 25: 1059-1063.
4. Zhang, X., et al. 2015. The small leucine-rich proteoglycan BGN accumulates in CADASIL and binds to NOTCH3. Transl. Stroke Res. 6: 148-155.
5. Lee, S.J., et al. 2020. Tripartite factors leading to molecular divergence between human and murine smooth muscle. PLoS ONE 15: e0227672.
6. Kim, K.W., et al. 2020. FUT1 deficiency elicits immune dysregulation and corneal opacity in steady state and under stress. Cell Death Dis. 11: 285.
7. Zhang, X., et al. 2021. Hydrolysis of a second Asp-Pro site at the N-terminus of NOTCH3 in inherited vascular dementia. Sci. Rep. 11: 17246.
8. Yoon, C.H., et al. 2022. The eyelid meibomian gland deficiency in fucosyltransferase 1 knockout mice. Int. J. Mol. Sci. 23: 9464.
9. Lee, S.J., et al. 2023. A midposition NOTCH3 truncation in inherited cerebral small vessel disease may affect the protein interactome. J. Biol. Chem. 299: 102772.

RESEARCH USE

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