Product Data Sheet

anti-human CD81 monoclonal antibody

Product information

Catalog Number: GM-1113
Clone: QV-6A8-S3
Description: purified monoclonal rat antibody
Specificity: anti-human CD81 (TAPA-1)
Isotype: IgG2b
Purification: Protein G
Storage: short term: 2°C - 8°C; long term: -20°C (avoid repeated freezing and thawing)
Buffer: phosphate buffered saline, pH 7.2
Immunogen: genetic immunisation with cDNA encoding human CD81
Selection: based on recognition of the complete native protein expressed on transfected mammalian cells

Working dilutions

Flow cytometry: 1.2 µg/10^6 cells
ELISA: 1:200 - 1:400
CELISA: 1:200 - 1:400
For each application a titration should be performed to determine the optimal concentration.

Specificity testing by flow cytometry

Fig.1: FACS analysis of Dubca cells using QV-6A8-S3 Cat. # GM-1113. Dubca cells were transiently transfected with an expression vector encoding CD81 (red curve). Binding of QV-6A8-S3 was detected with a PE-conjugated secondary antibody. (Isotype control: black curve).
SDS-PAGE analysis of QV-6A8-S3

Fig.3: SDS-PAGE analysis of purified QV-6A8-S3 monoclonal antibody. Lane 1: molecular weight marker, Lane 2: 2 µg of purified QV-6A8-S3 antibody. Proteins were separated by SDS-PAGE and stained with RAPID Stain™ Reagent.

Background

CD81 (TAPA-1) belongs to the transmembrane 4 superfamily (tetraspanin family). CD81 is a widely expressed cell-surface protein that is characterized by the presence of four transmembranic domains, short N and C termini, a small extracellular loop (SEL) and a large extra-cellular loop (LEL) (1). It is expressed on cells of hematopoietic, neuroectodermal and mesenchymal origin and plays a role in the regulation of cell development, cell-growth and signal transduction. CD81 plays a critical role in Hepatitis C Infection and is involved in HCV entry due to its ability to interact with virus’ E1/E2 glycoproteins (2,3). CD81 is an essential HCV host factor as silencing of CD81 expression by CD81-specific monoclonal antibodies in hepatoma cells inhibits HCV entry (4).

References


