Datasheet for ABIN7477863

Recombinant anti-SSEA-4 antibody

3 Images

Go to Product page

Overview

Quantity:	100 µg
Target:	SSEA-4
Reactivity:	Human
Host:	Rabbit
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Application:	ELISA, Immunohistochemistry (Frozen Sections) (IHC (fro)), Western Blotting (WB)

Product Details

Purpose:	Anti-SSEA-4 Antibody (clone E2-F8)
Clone:	E2-F8
Isotype:	IgG1
Specificity:	Positive Control: Colon cancer tissue
Characteristics:	SSEA-4 F8 antibody is an unconjugated recombinant rabbit monoclonal antibody to Stage-Specific Embryonic Antigen-4 (SSEA-4). Validated for ELISA, IHC-FR and immunoblotting applications.
Purification:	Purified by Protein A or Protein G affinity chromatography
Purity:	>95 %
Endotoxin Level:	<0.050 EU/mg as determined by Limulus Amebocyte Lysate (LAL) chromogenic endotoxin assay

Target Details

Target:	SSEA-4
Alternative Name:	SSEA4 (SSEA-4 Products)
Background:	Stage-specific embryonic antigen-4 (SSEA-4) is a ganglioside which consists of a glycosphingolipid (GSL) containing a terminal sialic acid residue (N-acetylneuraminic acid). SSEA-4 expression changes both qualitatively and quantitatively during development, differentiation and in tumorigenesis. During human development, SSEA-4 is first observed on pluripotent cells of the inner cell mass and is subsequently lost upon differentiation (Tondeur et al. 2008). In addition, human germ stem cells in the testis and ovary express SSEA-4 (Harichandan et al. 2013; Virant-Klun et al. 2013). SSEA-4 has been found to be over-expressed in a number of cancers and has been correlated with disease progression. Studies by the Buhring group (Sivasubramaniyan et al, 2015) proposed SSEA-4 as a novel marker to identify heterogeneous, invasive subpopulations of tumor cells. Importantly, they also demonstrated that increased cell-surface SSEA-4 expression is associated with the loss of cell–cell interactions and the gain of a migratory phenotype, suggesting an important role of SSEA-4 in cancer invasion by influencing cellular adhesion to the extracellular matrix. Studies of SSEA-4 expression and function have often been inhibited by the lack of high quality reagents. Due to the glycan nature of the antigen almost all antibodies that have been developed are of IgM or IgG3 classes, which tend to be of low affinity and can be difficult to handle. Glykogen have overcome these reagent challenges by using their proprietary immunisation methods to develop Clone F8, a recombinant monoclonal rabbit IgG antibody. The availability of this antibody will facilitate studies into SSEA-4 expression and function, both in stem cell biology and in cancer studies.
Molecular Weight:	143 kD

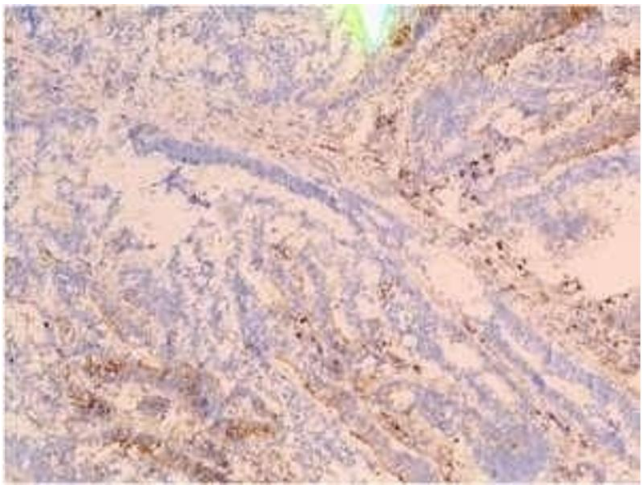
Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

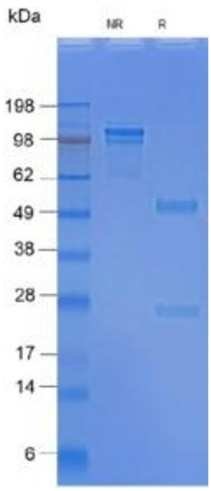
Concentration:	1 mg/mL
Buffer:	PBS buffer (pH 7.5)
Storage:	4 °C,-20 °C
Storage Comment:	Store frozen in aliquots at -20°C for up to one year, or at 4°C for up to one week
Expiry Date:	12 months

Images



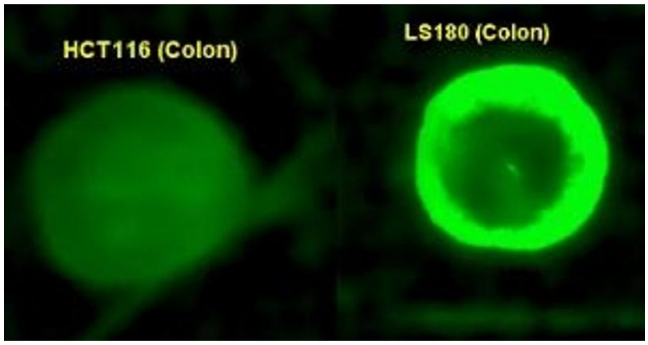
Immunohistochemistry

Image 1. Staining of frozen tissue sections of colon carcinoma using SSEA-4 F8 antibody



SDS-PAGE

Image 2. SDS-PAGE gel: 2.5 µg of antibody loaded. Lanes: non-reducing (NR) and reducing (R).



Immunofluorescence

Image 3. Total lipid extracts with rabbit anti-human SSEA-4-Anti-human SSEA-4 antibody used at 2 µg/mL, with a secondary antibody (A0545 used at a 1:30,000 dilution).