

AM33342PU-T

Monoclonal Antibody to TAG72 - Purified

Alternate names:

CA 72-4, CA72-4, Tumor-Associated Glycoprotein 72, sialy-Tn

Quantity:

20 µg

Concentration:

0.2 mg/ml

Background:

Tumor-associated glycoprotein (TAG) 72 is a tumor marker, identified and characterized using two different monoclonal antibodies B72.3 and CC49. It is a mucin-like protein of high molecular weight (220-400 kd). The protein is expressed in several epithelial-derived cancers including 94% of colonic adenocarcinomas, 84% of invasive ductal carcinomas of the breast, 96% of non-small cell lung carcinomas, 100% of common epithelial ovarian carcinomas, as well as the majority of pancreatic, gastric, and esophageal cancers evaluated. The protein expression is also detected in fetal colon, stomach, and esophagus, thus defining TAG-72 as an oncofetal antigen.

Host / Isotype:

Mouse / IgG1

Recommended Isotype Controls:

SM10P (for use in human samples), SM20P (for use in rat samples), AM03095PU-N

Clone:

B72.3 + CC49

Immunogen:

TAG-72 protein (B72.3 & CC49).

Format:

State: Liquid purified IgG fraction from Bioreactor Concentrate

Purification: Protein A/G Chromatography

Buffer System: 10mM PBS

Preservatives: 0.05% Sodium Azide

Stabilizers: 0.05% BSA

Applications:

Western Blot: 0.5-1 µg/ml.

Flow Cytometry: 0.5-1 µg/10⁶ cells.

Immunoprecipitation: 1-2 µg/500 µg protein lysate.

Immunofluorescence: 1-2 µg/ml.

Immunohistochemistry on Frozen and Formalin-Fixed Paraffin Sections: 0.5-1 µg/ml for 30 minutes at RT.

No pretreatment is required for staining of formalin-fixed, paraffin-embedded tissues.

Positive Control: Jurkat cells, Breast or lung carcinoma.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Molecular Weight:

220kDa

Specificity:

This antibody recognizes an oncofetal antigen of 220kDa, identified as a tumor-associated glycoprotein (TAG-72) with properties of a mucin.

This Monoclonal antibody defines the mucin-carried sialylated-Tn epitope. TAG-72 is usually expressed by adenocarcinomas, but is negative in mesotheliomas. Studies have reported that this antibody has 80% sensitivity and 93% specificity for pulmonary adenocarcinoma. Therefore, TAG-72 is a useful marker to distinguish between mesothelioma and adenocarcinoma. However, false positive reactions can

occur so results must be interpreted with the utmost caution. This antibody may be useful in the differentiation of non-small cell carcinomas from small cell carcinomas of the lung. The combined use of anti-TAG-72 and anti-GCDFP-15 is valuable in the diagnosis of apocrine carcinoma.

Cellular Localization: Cell surface and cytoplasmic.

Species Reactivity:

Tested: Human, Cow, Dog, and Rat.

Storage:

Store undiluted at 2-8°C.

DO NOT FREEZE!

Shelf life: one year from despatch.

General Readings:

1. Lottich SC, Johnston WW, Szpak CA, Delong ER, Thor A, Schlom J. Tumor-associated antigen TAG-72: correlation of expression in primary and metastatic breast carcinoma lesions. *Breast Cancer Res Treat.* 1985;6(1):49-56. PubMed PMID: 2996665.
2. Thor A, Ohuchi N, Szpak CA, Johnston WW, Schlom J. Distribution of oncofetal antigen tumor-associated glycoprotein-72 defined by monoclonal antibody B72.3. *Cancer Res.* 1986 Jun;46(6):3118-24. PubMed PMID: 3516392.
3. Colcher D, Minelli MF, Roselli M, Muraro R, Simpson-Milenic D, Schlom J. Radioimmunolocalization of human carcinoma xenografts with B72.3 second generation monoclonal antibodies. *Cancer Res.* 1988 Aug 15;48(16):4597-603. PubMed PMID: 3396011.
4. Sheer DG, Schlom J, Cooper HL. Purification and composition of the human tumor-associated glycoprotein (TAG-72) defined by monoclonal antibodies CC49 and B72.3. *Cancer Res.* 1988 Dec 1;48(23):6811-8. PubMed PMID: 3180090.
5. Hanisch FG, Uhlenbruck G, Egge H, Peter-Katalinić J. A B72.3 second-generation-monoclonal antibody (CC49) defines the mucin-carried carbohydrate epitope Gal beta(1-3) [NeuAc alpha(2-6)]GalNAc. *Biol Chem Hoppe Seyler.* 1989 Jan;370(1):21-6. PubMed PMID: 2469434.

Pictures:

Formalin-Paraffin colon cancer stained with TAG72 Antibody Cat.-No AM33342PU (Clone B72.3+CC49). Note cytoplasmic and cell surface staining.

