IBL Data Sheet

Code No. 28073

Anti-Human
C4.4A (301) Rabbit IgG Affinity Purify

Volume : 50 µg

Introduction : C4.4A is known to be present in the placenta, skin, esophagus and peripheral mononuclear cells in humans. It is a GPI (glycosylphosphatidylinoditol) binding protein which has a similar structure to urokinase receptor (uPAR) and belongs to Ly-6 family as uPAR. While most of Ly-6 family molecules are consisted of single domain, uPAR is of three cysteine-rich domains. C4.4A is a membrane protein which binds to cell membrane in GPI binding site, and is consisted of two cysteine-rich domains and a cysteine lacking third domain.
C4.4A was isolated from metastatic rat pancreatic cancer cell lines in 1989, and its human homolog was isolated in 2001. In human malignant tumors, it has been reported that C4.4A is expressed in malignant melanoma, urothelial, lung, esophageal and colon cancer. It is considered that C4.4A mediates invasion and metastasis of cancer cells by binding with laminin and degrading extracellular matrix in the progress of cancer. Therefore, immunological detection of C4.4A in cancerous tissue is expected to be an indicator of tumor metastasis.

Antigen : Synthetic peptide of a part of Human C4.4A (AGHQDRSNSG QYPAKG).

Purification : Purified with antigen peptide

Form : Lyophilized product from PBS containing 1 % BSA and 0.05 % NaN_3

How to use : 1.0 mL deionized water will be added to the product (the conc. comes up 50 µg /mL)

Stability : Lyophilized product, 5 years at 2 - 8 °C
: Solution, 2 years at –20 °C

Application : This antibody can be used for immunohistochemistry with formalin fixed paraffin embedded tissues by several techniques. And antigen retrieval with proteinase K (10 µg /mL, for 10 min. at 37°C) is recommended. The optimal concentration is about 5 µg/mL, however, the concentration should be optimized by each laboratory.
: This antibody can be used for western blotting in concentration of 1 - 5 µg /mL.

Reference :

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2. Hansen LV, Gårdsvoll H, Nielsen BS, Lund LR, Danø K, Jensen ON, Ploug M. Structural analysis and tissue localization of human C4.4A: a protein homologue of the urokinase receptor. Biochem J. 2004 Jun 15;380(Pt 3):845-57.
3. Matzku S, Wenzel A, Liu S, Zöller M. Antigenic differences between metastatic and nonmetastatic BSp73 rat tumor variants characterized by monoclonal antibodies. Cancer Res. 1989 Mar 1;49(5):1294-9.
4. Paret C, Bourouba M, Beer A, Miyazaki K, Schnölzer M, Fiedler S, Zöller M. Ly6 family member C4.4A binds laminins 1 and 5, associates with galectin-3 and supports cell migration. Int J Cancer. 2005 Jul 10;115(5):724-33.
5. Hansen LV, Laerum OD, Illemann M, Nielsen BS, Ploug M. Altered expression of the urokinase receptor homologue, C4.4A, in invasive areas of human esophageal squamous cell carcinoma. Int J Cancer. 2008 Feb 15;122(4):734-41.
6. Paret C, Hildebrand D, Weitz J, Kopp-Schneider A, Kuhn A, Beer A, Hautmann R, Zöller M. C4.4A as a candidate marker in the diagnosis of colorectal cancer. Br J Cancer. 2007 Oct 22;97(8):1146-56.
7. Konishi K, Yamamoto H, Mimori K, Takemasa I, Mizushima T, Ikeda M, Sekimoto M, Matsuura N, Takao T, Doki Y, Mori M. Expression of C4.4A at the invasive front is a novel prognostic marker for disease recurrence of colorectal cancer. Cancer Sci. 2010 Oct;101(10):2269-77.

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