

Purified anti-human CD9 (4AH19a)

Store at: -20°C

Package: 100µg (trial size: 20µg)



Overview

Product Description:	Purified anti-human CD9
Host/Isotype:	Mouse / IgG1,k
Class:	Monoclonal
Clone:	4AH19a
Reactivity:	Human
Applications:	ELISA, WB, Flow
Alternate Name:	TSPAN-29; MIC3; Tetraspanin-29; p24; Cell growth-inhibiting gene2 protein; BTCC-1; MRP-1; DRAP-27; 5H9 antigen; TSPAN29

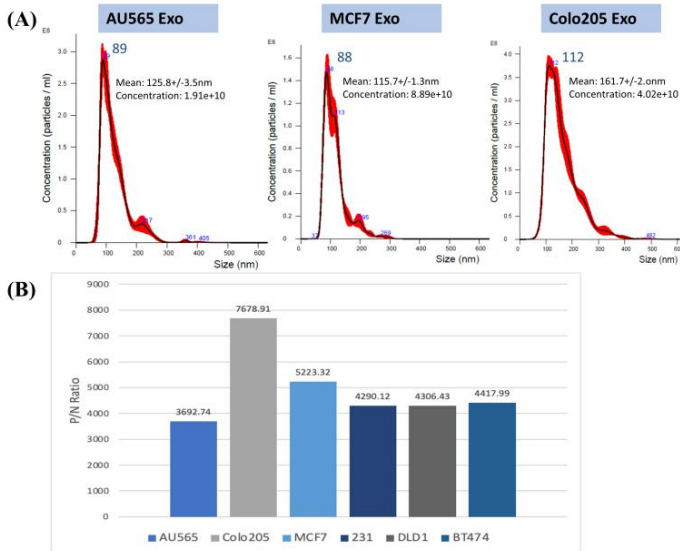
Properties

Form	Liquid
Concentration	1 mg/mL
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze/thaw cycles.
Storage buffer	PBS(pH 7.4), containing 0.09% sodium azide.
Note	FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES

Description

4AH19a reacts with CD9 (p24), a member of the tetraspan (TM4SF) family with 24 kDa MW, expressed on platelets and weakly on B-cells. It also expressed on eosinophils, basophils, endothelial and epithelial cells. CD9 antigen modulates cell adhesion, migration and platelet activation. GM1CD9 triggers platelet activation resulted in platelet aggregation, but it is blocked by anti-Fc receptor antibody CD32. This clone is cross reactive with non-human primate.

Images

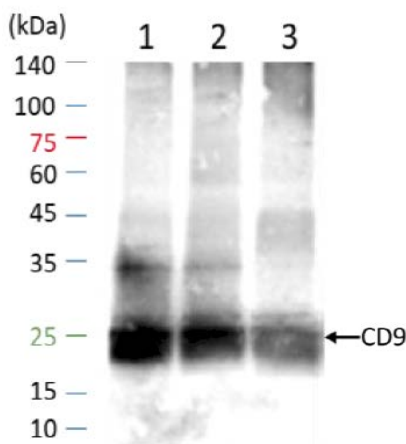


Anti-CD9(4AH19a) can detect several kinds of cell lines exosome via indirect ELISA assay

(A) To ensure antigen quality, exosome from different cell lines were measured by nanoparticle tracking analysis (NTA). Histogram shows mean peak and particle concentration of three selected cell lines exosomes, breast cancer cell line (AU565, MCF7), and colorectal cancer cell line (Colo205).

(B) Each kind of exosome was coated overnight with 5µg, and stained for CD9 with 4AH19a at 1/1000 dilution in indirect ELISA assay. This data showed the P/N ratio, which means 1st Ab +2nd Ab signal / 2nd Ab only signal, were very high. This data can ensure the signal is coming from 4AH19a, not from non-specific binding.

WB analysis of different cell lines exosome using anti-CD9(4AH19a)



All lanes: Anti-CD9 antibody (4AH19a) at 1/1,000 dilution
Lane 1: Colo 205 cell line exosome (5µg)
Lane 2: MDA-MB-231 cell line exosomes (5µg)
Lane 3: MCF7 cell line exosomes (5µg)

Secondary

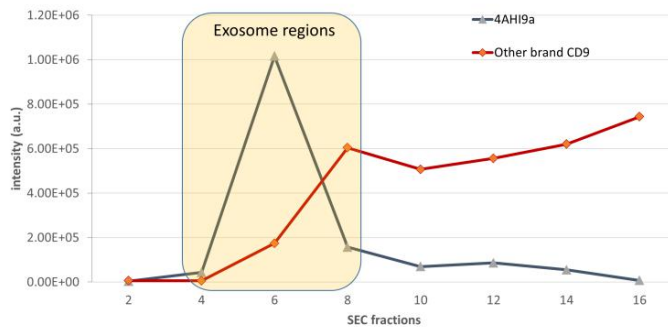
All lanes: Goat Anti-Mouse IgG1 at 1/20,000 dilution

Predicted band size: 25 kDa

Reducing form: sample treated with 4x Laemmli Sample Buffer and 2-mercaptoethanol

Non-reducing form: sample treated with 4x Laemmli Sample Buffer

CD9 Abs + MS.HRPS (IgG1) with plasma sample fractionated by SEC



Anti-CD9(4AH19a) can precisely capture exosome particles rather than soluble form protein in human plasma sample

Plasma samples were fractionated by SEC (size exclusion chromatography) method. Exosome particles were predicted to exist at fractions 4-7, and the protein to exist in after the tenth tube in soluble form.

These results showed 4AH19a antibodies could precisely capture exosome particles in fractions 4-7. On the other side, another brand CD81 antibody did not focus on exosome particles (still has high signal in fractions 10-16), which may cause non-specific signals.