

# Monoclonal Anti-human CD39

## Product reference: DDX0321

### Description

CD39, also known as ENTPD1, is a 58KDa multi-pass membrane protein belonging to the GDA1/CD39 NTPase family. It is expressed primarily on activated lymphoid cells and can also be detected in endothelial tissues. The vascular isoform and the placental isoform II are present in both placenta and umbilical vein, whereas placental isoform I is present in placenta only. CD39 can hydrolyze both nucleoside triphosphates and diphosphates. AC2.5 was generated after mouse immunization with EBV-transformed B cells. (*Rowe M et al, Int J Cancer. 1982 Apr 15;29(4):373-81*).

**Clone:** AC2.5  
**Species:** mouse  
**Specificity:** human CD39  
**Immunogen:** EBV-transformed human B lymphoblastoid cell line  
**Species cross-reactivity:** nd  
**Isotype:** IgG1  
**Purification:** QMA Hyper D ion exchange chromatography  
**Formulation/size:** **Purified:** 100 µg in 200 µl / 50 µg in 100 µl Tris-NaCl pH 8  
**Coupled:** 100 µg in 200µl / 50 µg in 100 µl PBS 50% glycerol

### Available formats:

Reference N°		Format	Application tested
50µg	100µg		
DDX0321P-50	DDX0321P-100	Purified	Surface flow cytometry, IHC frozen section, IP, WB
DDX0321A488-50	DDX0321A488-100	Alexa-fluor®488	Surface Flow cytometry, IF
DDX0321A546-50	DDX0321A546-100	Alexa- fluor®546	IF
DDX0321A647-50	DDX0321A647-100	Alexa- fluor®647	Surface Flow cytometry
DDX0321B-50	DDX0321B-100	Biotin	IHC, WB

*Other clones available on request*

### Applications tested

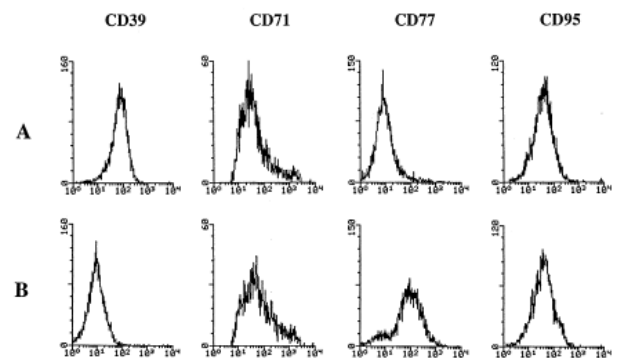
**Table 1.** MFI<sup>a</sup> values from tonsillar and *in vitro* cultured B cells

Molecule	GC B cells	Resting B cells	Stimulated B cells <sup>b</sup>	
			- Anti-CD44	+ Anti-CD44
CD10	280	10	15-90	110-270
CD23	5	90	30-60	90-180
CD24	5	75	5	5
CD38	1500	120	200-450	250-650
CD39	5	85	90	15
CD71	170	10	130	185
CD77	310-610 <sup>c</sup>	5	20-90	150-880 <sup>c</sup>
CD95	275	10	65-90	65-190

<sup>a</sup>Mean fluorescent intensity (channel number) of the specific staining.

<sup>b</sup>IgD<sup>+</sup>/CD38<sup>-</sup> tonsillar B cells (3×10<sup>5</sup>) were cultured on CD32-transfected fibroblasts together with anti-CD40 and anti-IgM with or without anti-CD44 for 3 days. The data represents nine experiments and the range in MFI is due to donor variation.

<sup>c</sup>Heterogeneous expression.



**Fig. 1.** A GC phenotype is induced by stimulating resting B cells with anti-CD40, anti-CD44 and anti-IgM. IgD<sup>+</sup>/CD38<sup>-</sup> tonsillar B cells (3×10<sup>5</sup>) were cultured on CD32-transfected fibroblasts together with (A) anti-CD40 and anti-IgM or (B) anti-CD40, anti-CD44 and anti-IgM. After 4 days of culture, the cells were stained with anti-CD20-FITC and CD20<sup>high</sup> cells gated for further analyzed with anti-CD10, CD23, CD24, CD38, CD39, CD71, CD77 and CD95-RPE respectively. Data represents nine experiments and is presented as histograms for each marker.

*Ingvarsson et al, Int Immunol, 1999*

### Usage recommendation:

- \*This monoclonal antibody may be used between 5-20 µg/ml.
- \*Optimal dilution should be determined by each laboratory for each application.
- \*Coupled antibody: to maintain RT before use.

### Aliquot storage conditions:

- 20°C. KEEP CONTENTS STERILE: no preservative.**
- Purified antibodies: avoid repeated freeze/thaw cycles.**
- Coupled antibodies: glycerol protects from freezing.**

Not for use in Humans. For research purpose only