Datasheet: MCA2225PE

BATCH NUMBER 173120

Description:	MOUSE ANTI SHEEP MHC CLASS II DQ DR POLYMORPHIC:RPE
Specificity:	MHC CLASS II DQ DR POLYMORPHIC
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	28.1
Isotype:	IgG1
Quantity:	100 TESTS

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species

Sheep

Species Cross Reactivity

Reacts with: Bovine, Goat

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution

Reconstitute with 1 ml distilled water

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% sodium azide (NaN_3) 1% bovine serum albumin 5% sucrose
Immunogen	Ovine alveolar macrophages.
RRID	AB_324857
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.
Specificity	**Mouse anti Sheep MHC Class II DQ DR antibody, clone 28.1** recognizes a polymorphic epitope on ovine MHC class II DQ and DR molecules, which are constitutively expressed on antigen presenting cells such as dendritic cells, B lymphocytes, monocytes, macrophages, activated T lymphocytes and may be induced on a range of other cell types by interferon gamma. The major histocompatibility complex (MHC) is a cluster of genes some of which are important in the immune response to infections. In sheep, this complex is referred to as the ovine leukocyte antigen (OLA) region. There are 2 major types of MHC class IIa molecules encoded by the OLA which are DR and DQ each composed of an alpha and beta chain. Mouse anti Sheep MHC Class II DQ DR antibody, clone 28.1 recognizes ovine MHC II transfectants DQ - T28.1, DQ - T26.2 and DR - T31.3 but not DR - T8.1. (Ballingall, K. *et al*. 1995).
Flow Cytometry	Use 10µl of the suggested working dilution to label 10^6 cells in 100µl
References	1. Puri, N.K. *et al.* (1987) Monoclonal antibodies to sheep MHC class II molecules recognize all HLA-D or subsets of HLA-D region products. Hum Immunol. 20 (3): 195-207. 2. Puri, N.K. & Brandon, M.R. (1987) Sheep MHC class II molecules. II. Identification and characterization of four distinct subsets of sheep MHC class II molecules. Immunology. 62 (4): 575-80. 3. Puri, N.K. *et al.* (1987) Sheep MHC class II molecules. I. Immunochemical characterization. Immunology. 62 (4): 567-73. 4. Puri, N.K. *et al.* (1987) Monoclonal antibodies to sheep MHC class I and class II molecules: biochemical characterization of three class I gene products and four distinct subpopulations of class II molecules. Vet Immunol Immunopathol. 15 (1-2): 59-86. 5. Ballingall. K. *et al*. (1995) Analysis of the fine specificities of sheep major histocompatibility complex class II - Specific monoclonal antibodies using mouse L - Cell transfectants. Anim. Genet. 26: 79-84. 6. Ferret-Bernard, S. *et al.* (2011) Mesenteric lymph node cells from neonates present a prominent IL-12 response to CpG oligodeoxynucleotide via an IL-15 feedback loop of amplification. Vet Res. 42:19. 7. Olivier, M. *et al.* (2012) Capacities of Migrating CD1b Lymph Dendritic Cells to Present

Salmonella Antigens to Naive T Cells. PLoS One. 7: e30430.
8. Arzt, J. *et al.* (2017) Pathogenesis of virulent and attenuated foot-and-mouth disease virus in cattle. Virol J. 14 (1): 89.
9. Ducournau, C. *et al.* (2020) Effective Nanoparticle-Based Nasal Vaccine Against Latent and Congenital Toxoplasmosis in Sheep. Front Immunol. 11: 2183.
10. Baillou, A. *et al.* (2024) Characterization of intestinal mononuclear phagocyte subsets in young ruminants at homeostasis and during *Cryptosporidium parvum* infection Front Immunol.15: 02 May [Epub ahead of print].

Storage	This product is shipped at ambient temperature. Prior to reconstitution store at +4°C. Following reconstitution store at +4°C. This product should be stored undiluted. DO NOT FREEZE. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA2225PE
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

'M450641:260413'

Printed on 13 Apr 2026