PDCD1 Cell Lysate – Tissue Lysate

PRODUCT OVERVIEW

Product Name	PD-1 (PDCD1), Cell Lysate
Full Product Name	Canine PD-1 HEK293 Overexpression Lysate
Product Gene Name	PDCD1 cell lysate
Product Synonym Names	Canine PD1/PDCD1/CD279 HEK293 Cell Lysate (WB positive control); programmed cell death 1
Sequence	Met1-Leu16 9
Host	HEK293 Cells
Form/Format	1x Sample Buffer (1x modified RIPA buffer+1x SDS loading buffer). Modified RIPA Lysis Buffer: 50 mM Tris-HCl pH 7.4, 150 mM NaCl, 1mM EDTA, 1% Triton X-100, 0.1% SDS, 1% Sodium deoxycholate, 1mM PMSF.
Preparation and Storage	Store at 4 degree C for up to twelve months from date of receipt. After re-dissolution, aliquot and store at -80 degree C for up to twelve months. Avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt.
Molecular Weight	The recombinant canine PDCD1 consists 383 amino acids and predicts a molecular mass of 43kDa.
Sequence Positions	383aa
Species	Canine
Recommend Usage	1. Centrifuge the tube for a few seconds and ensure the pellet at the bottom of the tube.**2. Re-dissolve the pellet using 200uL pure water and boil for 2-5 min.**
Sequence Construction	A DNA sequence encoding the canine PDCD1 (XP_543338.3) (Met1-Leu169) was expressed with the Fc region of human IgG1 at the C-terminus.
Preparation Method	Cell lysate was prepared by homogenization of the over-expressed cells in ice-cold modified RIPA Lysis Buffer with cocktail of protease inhibitors. Cell debris was removed by centrifugation. Protein concentration was determined by Bradford assay (protein assay, Microplate Standard assay). The cell lysate was boiled for 5 min in 1 x SDS loading buffer (50mM Tris-HCl pH 6.8, 12.5% glycerol, 1% sodium dodecylsulfate, 0.01% bromophenol blue) containing 5% b-mercaptoethanol, and lyophilized.
Product Categories/Family for PDCD1 cell lysate	ITIM/ITAM Immunoreceptors and Related Molecules Cancer Drug Targets
Applications Tested/Suitable for PDCD1 cell lysate	Western Blot (WB)
Application Notes for PDCD1 cell lysate	WB: Use at an assay dependent dilution.
Related Product Information for PDCD1 cell lysate	Programmed cell death 1, also known as PDCD1, is a type I transmembrane glycoprotein, and is an immunoreceptor belonging to the CD28/CTLA-4 family negatively regulates antigen receptor signaling by recruiting protein tyrosine phosphatase, SHP-2 upon interacting with either of two ligands, PD-L1 or PD-L2. PD1 inhibits the T-cell proliferation and production of related cytokines including IL-1, IL-4, IL-10 and IFN-gamma by suppressing the activation and transduction of PI3K/AKT pathway. In addition, coligation of PD1 inhibits BCR-mediating signal by dephosphorylating key signal transducer. PD1 has been suggested to be involved in lymphocyte clonal selection and peripheral tolerance, and thus contributes to the prevention of autoimmune diseases. Furthermore, PD1 is shown to be a regulator of virus-specific CD8+ T cell survival in HIV infection. As a cell surface molecule, PDCD1 regulates the adaptive immune response. Engagement of PD-1 by its ligands PD-L1 or PD-L2 transduces a signal that inhibits T-cell proliferation, cytokine production, and cytolytic function. This Canine PD-1 overexpression lysate was created in HEK293 Cells and intented for use as a Western blot (WB) positive control. Purification of PD-1 protein from the overexpression lysate was verified.

Product References and Citations for PDCD1 cell lysate	James ES, et al. (2005) PDCD1: a tissue-specific susceptibility locus for inherited inflammatory disorders. Genes Immun. 6(5): 430-7.Okazaki T, et al. (2007) PD-1 and PD-1 ligands: from discovery to clinical application. Int Immunol. 19(7): 813-24.del Rio ML, et al. (2008) PD-1/PD-L1, PD-1/PD-L2, and other co-inhibitory signaling pathways in transplantation. Transpl Int. 21(11): 1015-28.Riley JL.(2009) PD-1 signaling in primary T cells. Immunol Rev. 229(1): 114-25.
Other Notes	Small volumes of PDCD1 cell lysate vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PDCD1 purchase	MBS8117299 is a cell lysate targeting PDCD1. Also known as Canine PD-1 HEK293 Overexpression Lysate. Host: HEK293 Cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PDCD1. It may not necessarily be applicable to this product.

NCBI Accession #	XP_543338.3
Protein Family	Programmed cell death protein
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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