

Monoclonal Antibody to Pk (V5) Epitope Tag (GKPIPPLLGLDST) - Purified

Catalog No.:	SM1691X
Quantity:	2 mg
Concentration:	1.0 mg/ml
Background:	The V5 epitope tag is derived from a small epitope (Pk) present on the P and V proteins of the paramyxovirus of simian virus 5 (SV5). The V5 tag is usually used with all 14 amino acids (GKPIPPLLGLDST), although it has also been used with a shorter 9 amino acid sequence (IPNPLLGLD).
Host / Isotype:	Mouse / IgG2a
Recommended Isotype Controls:	AM03096PU-N
Clone:	SV5-Pk1
Immunogen:	Mice were infected with the paramyxovirus SV5, Simian-Virus 5. Spleen cells from immunised BALB/c mice were fused with cells of the SP2/0 Ag14 myeloma cell line.
Format:	State: Liquid purified IgG fraction Purification: Affinity Chromatography on Protein G Buffer System: PBS Preservatives: 0.09% Sodium Azide
Applications:	ELISA (1/1000-1/5000). Western blot (1/1000-1/5000). Immunoprecipitation. Immunofluorescence. Radioimmunoassays. Immunohistochemistry on Frozen Sections. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody recognises a small epitope, termed Pk, present on the P/V proteins of the paramyxovirus, SV5. This antibody has been used to detect recombinant proteins, some of which include transmembrane and secreted proteins, which have been tagged with this epitope. Usually, a 14 amino acid tag has been added to the recombinant proteins, although a smaller epitope of 9 amino acids (that as a peptide inhibit the binding of the monoclonal antibody to its native protein) has also been successfully used. The 14 amino acid epitope is; gly lys pro <u>ile pro asn pro leu leu gly leu asp</u> ser thr. (The 9 amino acid epitope is underlined).
Add. Information:	This product is manufactured under an exclusive license from the University of St. Andrews,UK.

Storage:

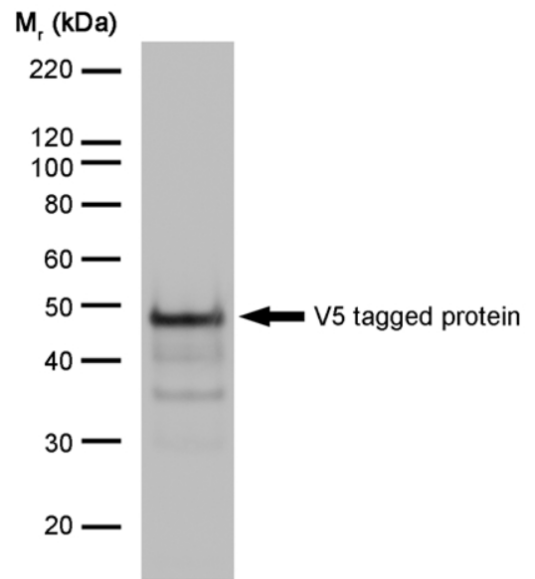
Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. Southern JA, Young DF, Heaney F, Baumgärtner WK, Randall RE. Identification of an epitope on the P and V proteins of simian virus 5 that distinguishes between two isolates with different biological characteristics. *J Gen Virol.* 1991 Jul;72 (Pt 7):1551-7. PubMed PMID: 1713260.
2. Hanke T, Szawlowski P, Randall RE. Construction of solid matrix-antibody-antigen complexes containing simian immunodeficiency virus p27 using tag-specific monoclonal antibody and tag-linked antigen. *J Gen Virol.* 1992 Mar;73 (Pt 3):653-60. PubMed PMID: 1372038.
3. Randall RE, Hanke T, Young D, Southern JA. Two-tag purification of recombinant proteins for the construction of solid matrix-antibody-antigen (SMAA) complexes as vaccines. *Vaccine.* 1993 Sep;11(12):1247-52. PubMed PMID: 7504859.
4. Randall RE, Young D, Hanke T, Szawlowski P, Botting C. Purification of antibody-antigen complexes containing recombinant SIV proteins: comparison of antigen and antibody-antigen complexes for immune priming. *Vaccine.* 1994 Mar;12(4):351-8. PubMed PMID: 8178558.
5. Hanke T, Young DF, Doyle C, Jones I, Randall RE. Attachment of an oligopeptide epitope to the C-terminus of recombinant SIV gp160 facilitates the construction of SMAA complexes while preserving CD4 binding. *J Virol Methods.* 1995 May;53(1):149-56. PubMed PMID: 7543487.
6. Jaffray, E. et al. (1995) Domain structure of IκBα and sites of interaction with NF-κB p65. *Mol. Cell. Biol.* 15: 2166-2172.
7. Rodriguez MS, Michalopoulos I, Arenzana-Seisdedos F, Hay RT. Inducible degradation of I kappa B alpha in vitro and in vivo requires the acidic C-terminal domain of the protein. *Mol Cell Biol.* 1995 May;15(5):2413-9. PubMed PMID: 7739525.
8. Arenzana-Seisdedos, F. et al. (1995) Inducible nuclear expression of newly synthesised IκBα negatively regulates DNA binding and transcriptional activities of NF-κB. *Mol. Cell. Biol.* 15: 2689-2696.
9. Hirst, K. et al. (1994) The transcription factor, CDK, its cyclin and their regulator; directing the transcription response to a nutritional signal. *EMBO J.* 13: 5410-5420.
10. Dunn C, O'Dowd A, Randall RE. Fine mapping of the binding sites of monoclonal antibodies raised against the Pk tag. *J Immunol Methods.* 1999 Apr 22;224(1-2):141-50. PubMed PMID: 10357214.
11. Young DF, Chatziandreou N, He B, Goodbourn S, Lamb RA, Randall RE. Single amino acid substitution in the V protein of simian virus 5 differentiates its ability to block interferon signaling in human and murine cells. *J Virol.* 2001 Apr;75(7):3363-70. PubMed PMID: 11238862.
12. Sanchez Garcia J, Ciufo LF, Yang X, Kearsey SE, MacNeill SA. The C-terminal zinc finger of the catalytic subunit of DNA polymerase delta is responsible for direct interaction with the B-subunit. *Nucleic Acids Res.* 2004 Jun 1;32(10):3005-16. Print 2004. PubMed PMID: 15173383.

Pictures:

V5 tagged protein detected with Mouse anti V5-tag (Cat.-No SM1691)



V5 tagged protein detected with Mouse anti V5-Tag (Cat.-No SM1691)

