

## Monoclonal antibody to V5 Epitope Tag - DyLight (TM)549

<b>Alternate names:</b>	Pk-Tag, V5-Tag
<b>Catalog No.:</b>	SM1691D5
<b>Quantity:</b>	0.5 mg
<b>Concentration:</b>	1.0 mg/ml
<b>Host / Isotype:</b>	Mouse / IgG2a
<b>Clone:</b>	SV5-Pk1
<b>Immunogen:</b>	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.
<b>Format:</b>	<b>State:</b> Liquid purified IgG fraction containing 0.09% Sodium Azide as preservative. <b>Purification:</b> Affinity Chromatography on Protein G. <b>Label:</b> DyLight549 – DyLight(TM)549
<b>Applications:</b>	Immunofluorescence (1/100-1/500). Membrane permeabilisation with 0.5% IGEPAL is required. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	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, that 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).
<b>Storage:</b>	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
<b>General Readings:</b>	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 I $\kappa$ B $\alpha$  and sites of interaction with NF- $\kappa$ B 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 I $\kappa$ B $\alpha$  negatively regulates DNA binding and transcriptional activities of NF- $\kappa$ B. *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.