iFluor™ 594 Conjugated Anti-DYKDDDDK Tag (FLAG) Antibody [A2-A4-R]

HA600138F

Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Species independent
Applications:	IF-Cell
Clone number:	A2-A4-R

Description: FLAG-tag, or FLAG octapeptide, or FLAG epitope, is a polypeptide protein tag that can be added to a protein using recombinant DNA technology, having the sequence motif DYKDDDDK (where D=aspartic acid, Y=tyrosine, and K=lysine). It is one of the most specific tags and it is an artificial antigen to which specific, high affinity monoclonal antibodies have been developed and hence can be used for protein purification by affinity chromatography and also can be used for locating proteins within living cells. It has been used to separate recombinant, overexpressed protein from wild-type protein expressed by the host organism. It can also be used in the isolation of protein complexes with multiple subunits, because its mild purification procedure tends not to disrupt such complexes. It has been used to obtain proteins of sufficient purity and quality to carry out 3D structure determination by x-ray crystallography. A FLAG-tag can be used in many different assays that require recognition by an antibody. If there is no antibody against a given protein, adding a FLAG-tag to a protein allows the protein to be studied with an antibody against the FLAG sequence. Examples are cellular localization studies by immunofluorescence, immunoprecipitation or detection by SDS PAGE protein electrophoresis and Western blotting. The peptide sequence of the FLAG-tag from the N-terminus to the C-terminus is: DYKDDDDK (1012 Da). Additionally, it may be used in tandem, commonly the 3xFLAG peptide: DYKDHD-G-DYKDHD-I-DYKDDDDK (with the final tag encoding an enterokinase cleavage site). It can be fused to the C-terminus or the N-terminus of a protein, or inserted within a protein. The tyrosine residue in the FLAG-tag can be sulfated, which can affect antibody recognition of the FLAG epitope. The FLAG-tag can be used in conjunction with other affinity tags, for example a polyhistidine tag (His-tag), HA-tag or myc-tag.

Conjugate:	iFluor™ 594
Immunogen:	Synthetic peptide immune sequence is N-DYKDDDDK-C.
Recommended Dilutions:	
IF-Cell	1:100
Storage Buffer:	Supplied in phosphate-buffered solution, pH 7.2, containing 0.2% ProClean 950 and BSA.
Storage Instruction:	Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.
Purity:	Protein A affinity purified.

Images

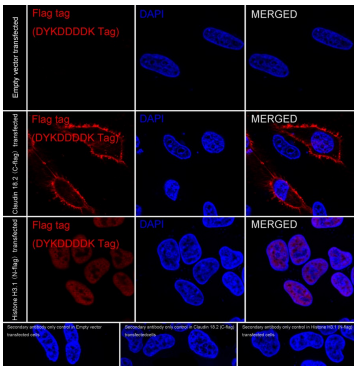

Fig1: Immunocytochemistry analysis of HeLa cells labeling DYKDDDDK Tag (FLAG) with Mouse anti-DYKDDDDK Tag (FLAG) antibody (HA600138F) at 1/500 dilution.

HeLa cells, transfected with empty control (top, negative) / Flag-tagged Claudin 18.2 (middle, positive) / Flag-tagged Histone H3.1 (bottom, positive) expression vector, respectively, were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Mouse anti-DYKDDDDK Tag (FLAG) antibody (HA600138F, iFluor™ 594, red) at 1/500 dilution in 1% BSA in PBST overnight at 4 ℃. Nuclear DNA was labelled in blue with DAPI.