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Datasheet for 600-441-386

VSV-G Epitope Tag Antibody Dylight™ 488 Conjugated

Overview

Description:	Anti-VSV-G Epitope Tag (RABBIT) Antibody DyLight™ 488 Conjugated - 600-441-386
Item No.:	600-441-386
Size:	100 µg
Applications:	IF, Other
Reactivity:	VSV-G-Tag
Host Species:	Rabbit

Product Details

Background:	In order to improve expression levels, solubility, folding, purification and detection of recombinant proteins, a very common strategy is the fusion of peptides or proteins also known as “tags”, to the target protein. Because these tags are entities with known sequences and well characterized physicochemical properties, they are an essential tool in molecular biology that facilitates expression and purification of recombinant proteins. Because fusion tags constitute themselves antigenic epitopes for which antibodies can be developed they particularly useful for specific detection of the target protein. This Anti-VSV-G Epitope Tag Antibody generated in rabbit is conjugated to DyLight™488.
Synonyms:	Rabbit Anti-VSV-G Epitope Tag DyLight 488™ Conjugated Antibody, Rabbit Anti VSV-G Epitope Tag DyLight 488™ Conjugated Antibody, Rabbit Anti-VSV-G Tag Antibody DyLight 488™ Conjugation
Host Species:	Rabbit
Conjugate:	DyLight™ 488
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	4.2

Target Details

Reactivity:	VSV-G-Tag
Immunogen Type:	Conjugated Peptide

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding aa 501-511 (Y-T-D-I-E-M-N-R-L-G-K) of vesicular stomatitis virus glycoprotein (VSV-G) conjugated to KLH using maleimide.
Purity/Specificity:	This affinity purified antibody is directed against the VSV-G epitope tag and is useful in determining its presence in over expressed proteins in various assays. The antibody recognizes the VSV-G epitope tag (Tyr-Thr-Asp-Ile-Glu-Met-Asn-Arg-Leu-Gly-Lys) fused to either the amino- or carboxy- termini of targeted proteins in transfected or transformed cells.

Application Details

Suggested Applications:	IF, Other (Based on references)
Application Note:	This product is designed for immunofluorescence microscopy, fluorescence based plate assays (FLISA) and fluorescent western blotting. This product is also suitable for multiplex analysis, including multicolor imaging, utilizing various commercial platforms. The emission spectra for this DyLight™ conjugate match the principle output wavelengths of most common fluorescence instrumentation.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
FLISA:	>1:20,000
IF:	>1:5,000
WB:	1:10,000 - 1:25,000

Formulation

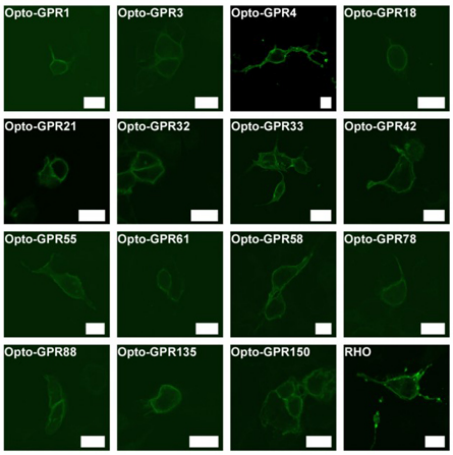
Physical State:	Lyophilized
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	100 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient

Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

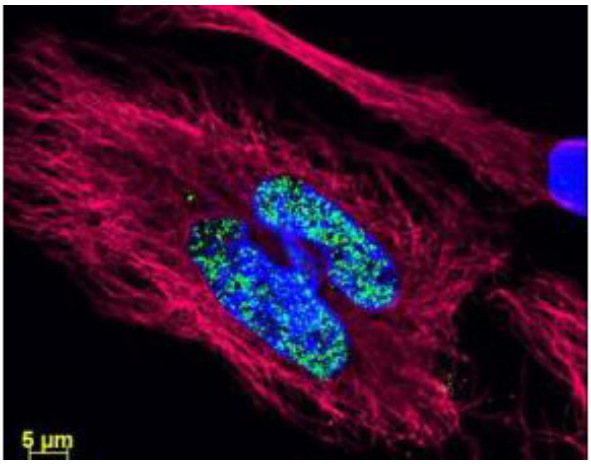
Images



Immunofluorescence Microscopy
Confocal microscopy using Anti-VSV-G Epitope Tag Antibody DyLight™ 488 Conjugated.
Surface localization of chimeric receptors. Confocal microscopy images of HEK293 cells expressing chimeric receptors with induction or reduction of CRE, SRE-.L and SRE reporters detected using an antibody directed against the extracellular N-terminal VSV-G epitope. Scale bars are 10 µm.
A total of 20,000 cells/well were seeded in 96-well plates and transfected with 100 to 150 ng receptor vector. After 48 h of transfection, the cells were washed with PBS and fixed with 4% PFA. After fixation, the cells were washed, blocked with 1% BSA in PBS, and incubated with antibodies against the N-terminal VSV-G epitope (DyLight™ 488 conjugated antibody, 600-441-386, Rockland, 1:500 final dilution in blocking buffer). For confocal microscopy, cells were washed and covered with mounting medium. Pictures of individual cells were recorded on an inverted confocal microscope (LSM 700, Zeiss, ×63 objective, excitation and emission wavelengths were 488 and 500–700 nm, respectively.).
Figure S6. PMID: 29769519.

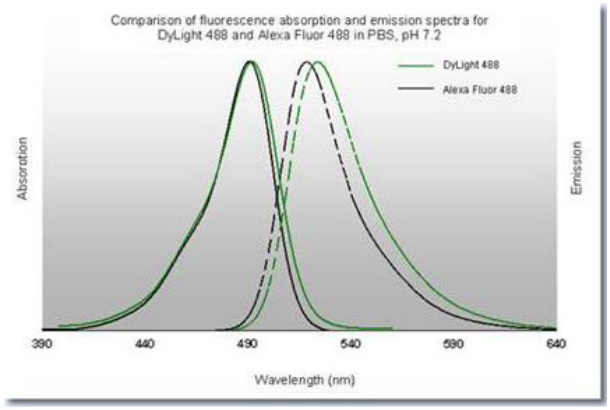
Diagram
Properties of Dylight™ Conjugates.

Emission	Color	DyLight™ Dye	Ex/Em (nm)	ε (M^{-1} cm^{-1})	Similar Dyes
Blue		**405**	**400/420**	**30,000**	**Alexa™ 405, Cascade Blue**
Green		488	493/518	70,000	Alexa™ 488, Cy2®, FITC
Yellow		549	550/568	150,000	Alexa™ 546, Alexa 555, Cy3®,TRITC
Red		649	646/674	250,000	Alexa™ 647, Cy5®
Near Infrared		680	682/715	140,000	Alexa™ 680, Cy5.5®, IRDye™ 700
Infrared		800	770/794	270,000	IRDye™ 800



Immunofluorescence Microscopy
DyLight™ dyes can be used for multi-color immunofluorescence microscopy with uniform fluorescence intensity throughout the image. DyLight™ dyes are exceptionally bright and photostable and are optimized for microscopy and microarray detection methods. This image shows anti-histone detection using a DyLight™ 488 conjugate (green). Anti-Tubulin was detected using a DyLight™ 549 conjugate (red). Nuclei were counter-stained using DAPI (blue). The image was captured using an Axio Imager.Z1 (Zeiss Micro Imaging Inc).

Diagram



References

- Morri et al. Optical functionalization of human Class A orphan G-protein-coupled receptors. *Nature Communications* (2018)
- Azizi A et al. Viral quantitative capillary electrophoresis for counting and quality control of RNA viruses. *Anal Chem.* (2012)

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