



Agrisera
Antibodies

Tag antibody guide

Antibodies to tags are the most used and published antibodies in research. Where a specific antibody is missing, tag antibodies can be used to facilitate studies on a target protein in transgenic organisms. Agrisera's collection contains over 200 antibodies to variety of used tags, both the most popular ones, and those that are less common.

This guide aims to provide you with more information on different tags, as well as tag antibody recommendations.

Common tags

Tags can be divided into separate categories, based on their function and inherit properties. Below is a list of different types of tags, as well as short descriptions of these. In the table of tags further down, the abbreviation for the type can be found in the right-most column.

- **Affinity Tag (AT):** Binds specifically to a partner molecule, allowing one-step purification of the protein using affinity chromatography methods.
- **EpitopeTag (ET):** A short, defined peptide sequence, often 6-15 amino acids long, that has no intrinsic biological function or activity. The primary role of an epitope tag is to provide a means for the detection or purification of the target protein.
- **Fluorescent Tag (FT):** Enables the detection and localization of proteins through their ability to emit fluorescence when

excited by specific wavelengths of light.

- **Functional/Enzyme Tag (FET):** Has a biological activity, such as enzymatic or catalytic properties, often used for performing specific biochemical reactions or assays.
- **Reporter Protein Tag (RPT):** Provides a measurable signal, allowing monitoring of the expression or activity of a protein in a system.
- **Selectable Marker Tag (SMT):** Enables selection or differentiation based on resistance to a specific substance.
- **Solubility/Expression Enhancer Tag (SEET):** Improves the solubility, stability, or expression of the target protein in systems where proteins may otherwise aggregate or be poorly expressed.

Tag	Sequence/ origin	Agrisera antibodies	Molecular weight	Common use	Type
aadA1 tag (Aminoglycoside adenylyltransferase tag)	Full-length aadA1 enzyme (267 amino acids)	Anti-aadA1	~30 kDa	Selectable marker for genetic transformation of plants.	SMT
BAR tag (Phosphinothricin N-acetyltransferase tag)	Phosphinothricin N-acetyltransferase	Anti-BAR	3-5 kDa	Selectable marker for genetic transformation of plants.	SMT
BC2 tag (Binding Component 2 tag)	P D R K A A V S H W Q Q	Anti-BC2	~1.4 kDa		AT, ET
Biotin tag	Biotin	Anti-Biotin	244 Da		AT

Tag	Sequence/ origin	Agrisera antibodies	Molecular weight	Common use	Type
Ble tag (Bleomycin resistance protein tag)	Bleomycin resistance protein from <i>Streptoalloteichus hindustanus</i>	Anti-Ble	~1.9 kDa	Selectable marker for genetic transformation of plants.	SMT
BirA tag (mutated/TurboID)	Recombinant, mutated BirA protein from <i>Escherichia coli</i>	Anti-BirA	35 kDa	Studies of protein interactions in different types of cells, organs and developmental stages. Proximity labelling.	AT
c-Myc tag		Anti-c-Myc	1.2 kDa	Protein detection in Western blotting, immunofluorescence, and immunoprecipitation.	ET
CFP tag (Cyan fluorescent protein)	Variant of GFP	Anti-CFP	~27 kDa	Monitoring protein localization, movement, and interactions in live cells, confirming the expression of tagged proteins, studying gene expression and protein-protein interactions.	FT

Tag	Sequence/ origin	Agrisera antibodies	Molecular weight	Common use	Type
CBP tag (Calmodulin binding peptide tag)	KRRWKKNFIAVSAANRF KKISSSGAL	Anti-CBP	~3 kDa	Can also act as an epitope tag,	AT
CRISPR tag (Cas9)	<i>Streptococcus thermophilus</i> Cas9/Csn1 protein	Anti-Cas9	~160 kDa		FET
DYKDDDDK (Binds to Sigma FLAG®)	DYKDDDDK	Anti-DYKDDDDK	~1 kDa	Detection and purification; known for its small size and strong antibody affinity. Can also be considered an epitope tag but is often used for purification.	AT, ET
FITC tag (Fluorescein isothiocyanate)	Derivative of fluorescein, functionalized with an isothiocyanate group	Anti-FITC	~0.39 kDa	Monitoring protein localization, movement, and interactions in live cells, confirming the expression of tagged proteins, studying gene expression and protein-protein interactions.	FT

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GAL4 tag (Regulatory protein GAL4 tag)	Full-length GAL4 protein (881 amino acids)	Anti-GAL4	99 kDa		FET
GFP tag (Green fluorescent protein)	<i>Aequorea victoria</i> jellyfish (220 amino acids)	Anti-GFP	~27 kDa	Monitoring protein localization, movement, and interactions in live cells, confirming the expression of tagged proteins, studying gene expression and protein-protein interactions.	FT
GST tag (Glutathione S-transferase tag)	Full-length GST protein (211 amino acids)	Anti-GST	~26 kDa	Protein purification and pull-down assays.	AT
GUS tag (Beta-glucuronidase tag)	Derived from <i>Escherichia coli</i> GUS protein	Anti-GUS	70-80 kDa		RPT
HA tag (Hemagglutinin tag)	YPYDVPDYA	Anti-HA	1.1 kDa	Immunoprecipitation and Western blotting.	ET

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Halo tag (Haloalkane dehalogenase tag)	Full-length HaloTag protein (297 amino acids)	Anti-Halo tag	33 kDa		AT
His tag (Polyhistidine tag)	Typically HHH or HHHHHH	Anti-His	~0.4 kDa (3xHis), ~0.8 kDa (6xHis)	Protein purification via immobilized metal affinity chromatography (IMAC).	AT
HSV tag (Herpes simplex virus tag)	S Q P E L A P E D P E D	Anti-HSV	~1.3 kDa		ET
KT3 tag	K P P T P P P E P E T	Anti-KT3	~1.2 kDa		ET
LUC tag (Luciferase tag)	Derived from LUC protein sequence of <i>Photinus pyralis</i>	Anti-LUC	61 kDa		RPT
MBP tag (Maltose binding protein tag)	Full-length MBP protein from <i>Escherichia coli</i>	Anti-MBP	42.5 kDa	Studies of protein expression using a wide range of applications. Overlap with solubility enhancers, but widely used as an affinity tag.	AT, SEET

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mCherry tag	DsRed protein from <i>Discosoma</i> sp. coral (236 amino acids)	Anti-mCherry	~26 kDa	Monitoring protein localization, movement, and interactions in live cells, confirming the expression of tagged proteins, studying gene expression and protein-protein interactions.	FT
mOrange tag	DsRed protein from <i>Discosoma</i> sp. coral		~27 kDa	Monitoring protein localization, movement, and interactions in live cells, confirming the expression of tagged proteins, studying gene expression and protein-protein interactions.	FT
Myc	E Q K L I S E E D L				
RFP tag (Red fluorescent protein)	DsRed protein from <i>Discosoma</i> sp. coral	Anti-RFP	~26 kDa	Monitoring protein localization, movement, and interactions in live cells, confirming the expression of tagged proteins, studying	FT

Tag	Sequence/ origin	Agrisera antibodies	Molecular weight	Common use	Type
				gene expression and protein-protein interactions.	
S tag (Streptavidin tag)	KETAAAKFERQHMDS	<u>Anti-S</u>	1.75 kDa		ET
Strep-tag II tag	WSHPQFEK	<u>Anti-Strep</u>	~1 kDa	High-affinity binding to Strep-Tactin for purification purposes.	AT
Sumo tag (Small ubiquitin-like modifier tag)				Often used as a solubility enhancer, but also for affinity purification.	SEET, AT
tdTomato tag	Tandem dimer of RFP		~54 kDa	Monitoring protein localization, movement, and interactions in live cells, confirming the expression of tagged proteins, studying gene expression and protein-protein interactions.	FT

Tag	Sequence/ origin	Agrisera antibodies	Molecular weight	Common use	Type
T7 tag (Derived from T7 bacteriophage gene 10)	M A S M T G G Q Q M G	Anti-T7	1.1 kDa	Detection in Western blotting and immunoprecipitation.	ET
TAP tag (Tandem Affinity Purification tag)	C S S G A L D Y D I P T T A S E N L Y F Q	Anti-TAP	35-40 kDa	Rapid purification of low abundance complexes. TAP approach can be combined with mass spectrometry to allow identification of protein interactions with a given target protein.	AT
TRITC tag (Tetramethylrhodamine)	Derivative of rhodamine, functionalized with an isothiocyanate group	Anti-TRITC	~0.44 kDa	Monitoring protein localization, movement, and interactions in live cells, confirming the expression of tagged proteins, studying gene expression and protein-protein interactions.	FT
Trx tag (Thioredoxin 1 Fusion protein tag)	Full-length Trx recombinant protein (104 amino acids)	Anti-Trx	12 kDa	Fusion tag in a number of molecular biology applications.	SEET

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V5 tag (Derived from V protein of simian virus 5)	G K P I P N P L L G L D S T	Anti-V5	~1.4 kDa	Protein detection and immunoprecipitation.	ET
VSV-G tag (Vesicular stomatitis virus Glycoprotein tag)	Y T D I E M N R L G K	Anti-VSV-G	~1.3 kDa	Protein detection and purification.	ET
YFP tag (Yellow fluorescent protein)	Variant of GFP	Anti-YFP	~26 kDa	Monitoring protein localization, movement, and interactions in live cells, confirming the expression of tagged proteins, studying gene expression and protein-protein interactions.	FT