Revision 2

Store at -20C

#9962

Epitope Tag Antibody Sampler Kit

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1 Kit (5 x 20 microliters)

For Research Use Only. Not for Use in Diagnostic Procedures.

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
GST-Tag (91G1) Rabbit mAb	2625	20 µl		Rabbit IgG
Myc-Tag (71D10) Rabbit mAb	2278	20 µl		Rabbit IgG
HA-Tag (C29F4) Rabbit mAb	3724	20 µl		Rabbit IgG
His-Tag (D3I1O) XP® Rabbit mAb	12698	20 µl		Rabbit IgG
DYKDDDDK Tag (9A3) Mouse mAb (Binds to same epitope as Sigma-Aldrich Anti-FLAG M2 antibody)	8146	20 µl		Mouse IgG1
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat
Anti-mouse IgG, HRP-linked Antibody	7076	100 µl		Horse

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The Epitope Tag Antibody Sampler Kit provides an economical means to analyze the expression of a variety of epitope tagged proteins. The kit contains enough primary and secondary antibodies to perform two Western blots per primary antibody.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Background

Epitope tags are useful for the labeling and detection of proteins using immunoblotting, immunoprecipitation, and immunostaining techniques. Because of their small size, they are unlikely to affect the tagged protein's biochemical properties.

Several different epitope tags are now commonly utilized and readily available. For instance, a variety of plasmids contain DNA that encodes an amino-terminal tag consisting of six histidine (6xHis) residues followed by an extended multiple cloning site. The 6xHis tag on the expressed recombinant proteins allows for efficient coupling to Ni2+ affinity resins and purification by single step chromatography (1). As is the case with other protein tag systems (2), this polyhistidine tag can often be cleaved at sites recognized by proteases such as thrombin and enterokinases to isolate the protein of interest (1). Glutathione S-transferase (GST) is another widely used fusion partner, since it provides both an easily detectable Tag and a simple purification process with little effect on the biological function of the protein of interest. Numerous vectors containing GST-Tag have been developed for both prokaryotic and eukaryotic systems over the past decade (3-5). The HA tag, derived from an epitope of the influenza hemagglutinin protein, has also been extensively used as a general epitope tag in expression vectors (6), while the Myc epitope tag is routinely used to detect expression of recombinant proteins in bacteria, yeast, insect and mammalian cell systems (7). Finally, the DYKDDDDK peptide has been used extensively as a general epitope tag in expression vectors and consists of only eight amino acids. This peptide can be expressed and detected with the protein of interested as an amino-terminal or carboxy-terminal fusion (8).

Background References

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5. Yu, J. et al. (1998) *Mol. Cell. Biol.* 18, 1379-1387.
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8. Brizzard, B. L. et al. (1994) *Biotechniques* 16, 730-735.

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