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# Phosphotyrosine Antibody: Biotin
**Catalog # ASM10413**

## Specification

### Phosphotyrosine Antibody: Biotin - Product Information

| | |
|---|---|
| Application | **ICC/IF, IHC** |
| Host | **Rabbit** |
| Reactivity | **Species Independent** |
| Clonality | **Polyclonal** |

**Description**
Rabbit Anti-Phosphotyrosine Polyclonal

**Target/Specificity**
Detects proteins phosphorylated on tyrosine residues. Does not cross-react with phosphoserine or threonine.

**Other Names**
Phospho-tyrosine Antibody

**Immunogen**
Phosphotyrosine conjugated to KLH

**Purification**
Protein A Purified

| | |
|---|---|
| Storage | **4ºC** |

**Storage Buffer**
PBS pH7.0, 0.01% sodium azide

| | |
|---|---|
| Shipping Temperature | **Blue Ice or 4ºC** |

**Certificate of Analysis**
A 1:250 dilution of SPC-161 was sufficient for detection of tyrosine-phosphorylated species in mouse spleen lysates in western blot analysis.

### Phosphotyrosine Antibody: Biotin - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

### Phosphotyrosine Antibody: Biotin - Images

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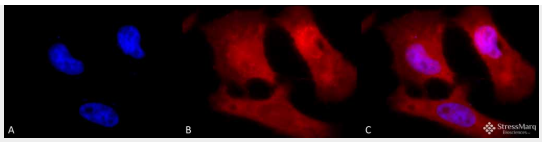
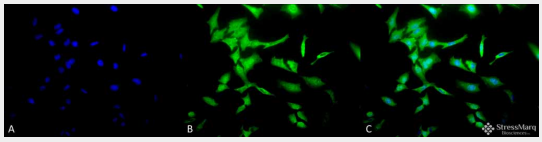
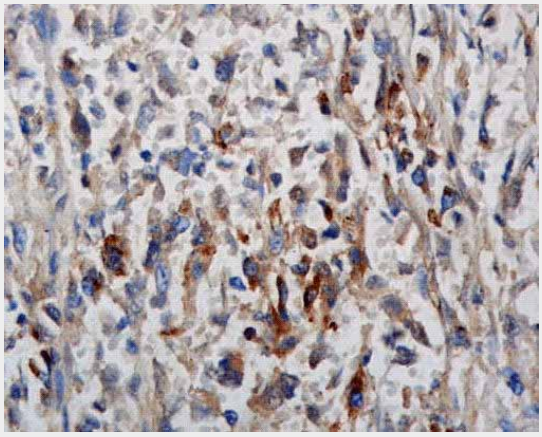



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Phosphotyrosine Polyclonal Antibody (ASM10413). Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Phosphotyrosine Polyclonal Antibody (ASM10413) at 1:50 for 12 hours at 4°C. Secondary Antibody: APC Goat Anti-Rabbit (red) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Nucleus. Cytoplasm. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-Phosphotyrosine Antibody. (C) Composite.




Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Phosphotyrosine Polyclonal Antibody (ASM10413). Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Phosphotyrosine Polyclonal Antibody (ASM10413) at 1:50 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Nucleus. Cytoplasm. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-Phosphotyrosine Antibody. (C) Composite.



Immunohistochemistry analysis using Rabbit Anti-Phosphotyrosine Polyclonal Antibody (ASM10413). Tissue: breast cancer. Species: Human . Primary Antibody: Rabbit Anti-Phosphotyrosine Polyclonal Antibody (ASM10413) at 1:100.

**Phosphotyrosine Antibody: Biotin - Background**

Protein phosphorylation is an important posttranslational modification that serves many key functions to regulate a protein’s activity, localization, and protein-protein interactions. Phosphorylation is catalyzed by various specific protein kinases, which involves removing a phosphate group from ATP and covalently attaching it to to a recipient protein that acts as a substrate. Most kinases act on both serine and threonine; others act on tyrosine, and a number (dual specificity kinases) act on all three. Because phosphorylation can occur at multiple sites on any given protein, it can therefore change the function or localization of that protein at any time (1). Changing the function of these proteins has been linked to a number of diseases, including cancer, diabetes, heart disease, inflammation and neurological disorders (2-4).
In particular, the phosphorylation of tyrosine is considered one of the key steps in signal transduction and regulation of enzymatic activity (5). Phosphotyrosine can be detected through

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specific antibodies, and are
helpful in facilitating the identification of tyrosine kinase substrates (6).

**Phosphotyrosine Antibody: Biotin - References**

1. Goto H. et al. (2005) Nature Cell Biology 8: 180-187.
2. Blume-Jensen P. and Hunter T. (2001) Nature 411: 355-365.
3. Downward J. (2001) Nature 411: 759-762.
4. Pawson T. and Saxton T.M. (1999) Cell 97: 675-678.
5. Frackelton A.R. Jr., Ross A.H., and Eisen H.N. (1983) Mol Cell Biol. 3: 1343-1352.
6. Ross A.H., Baltimore D., and Eisen H.N. (1981) Nature 294: 654-656.
7. Ostrovsky PC. (1995) Genes Dev. 9(16): 2034-2041.