

# Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

## SZABO-SCANDIC HandelsgmbH

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### Anti-Phosphotyrosine Antibody [G104]

Mouse Anti- Phosphotyrosine Monoclonal IgG1 Catalog No. SMC-174



#### **Overview**

#### **Product Name**

Phosphotyrosine Antibody

#### Description

Mouse Anti- Phosphotyrosine Monoclonal IgG1

#### **Species Reactivity**

Species Independent

#### Applications

WB, IHC, ICC/IF, IP

**Antibody Dilution** 

WB (1:1000), IHC (1:100); optimal dilutions for assays should be determined by the user.

#### **Host Species**

Mouse

#### Immunogen

Phosphotyrosine, alanine and glyceine in a 1:1:1 ratio polymerized in the presence of keyhole limpet hemocyanin with 1-ethyl-3-(3'- dimentrylaminopropyl) carbodiimide

#### Concentration

1 mg/ml

#### Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

#### **Properties**

#### **Storage Buffer**

PBS pH7.4, 50% glycerol, 0.09% sodium azide

#### Storage Temperature

-20°C

#### **Shipping Temperature**

Blue Ice or 4°C

#### Purification

Protein G Purified

Clonality

## Monoclonal Clone Number G104 Isotype IgG1

#### Specificity

Reacts with phosphotyrosine, and detects the presence of phosphotyrosine in both un-stimulated and stimulated cell lysates. Does not cross-react with phosphoserine or phosphothreonine.

#### **Cite This Product**

Mouse Anti- Phosphotyrosine Monoclonal, Clone G104 (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-174)

#### **Certificate Of Analysis**

1  $\mu$ g/ml of SMC-174 was sufficient for detection of phosphorylated tyrosine residues in 10  $\mu$ g of rat tissue lysate by colorimetric immunoblot analysis using Goat anti-rat IgG:HRP as the secondary antibody.

#### **Biological Description**

#### **Alternative Names**

PhosphoTyrosine (pY) Antibody, PhosphoTyrosine (pY) Antibody

#### **Research Areas**

Cell Signaling, Phosphorylation, Post-translational Modifications

#### Scientific Background

Protein phosphorylation is an important posttranslational modification that serves many key functions to regulate a proteins 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 (3). Changing the function of these proteins has been linked to a number of diseases, including cancer, diabetes, heart disease, inflammation and neurological disorders (4-6).

In particular, the phosphorylation of tyrosine is considered one of the key steps in signal transduction and regulation of enzymatic activity (7). Phosphotyrosine can be detected through specific antibodies, and are helpful in facilitating the identification of tyrosine kinase substrates (8).

#### References

- 1. Garton A.J., Flint A.J., and Tonks N.K. (1996) Mol and Cell Bio 16(11): 6408-6418.
- 2. Garton A.J., and Tonks N.K. (1999) J Bio Chem. 274(6): 3811-3818.
- 3. Goto H. et al. (2005) Nature Cell Biology 8: 180-187.
- 4. Blume-Jensen P. and Hunter T. (2001) Nature 411: 355-365.
- 5. Downward J. (2001) Nature 411: 759-762.
- 6. Pawson T. and Saxton T.M. (1999) Cell 97: 675-678.
- 7. Frackelton A.R. Jr., Ross A.H., and Eisen H.N. (1983) Mol Cell Biol. 3: 1343-1352.
- 8. Ross A.H., Baltimore D., and Eisen H.N. (1981) Nature 294: 654-656.
- 9. Tiganis T., Kemp B.E., and Tonks N.K. (1999) J. Bio Chem. 274(39): 27768-27775.

#### **Product Images**



Immunohistochemistry analysis using Mouse Anti-Phosphotyrosine Monoclonal Antibody, Clone G104 (SMC-174). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Phosphotyrosine Monoclonal Antibody (SMC-174) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Stratum granulosum stianing in the epidermis. Some dermal staining.



Western Blot analysis of Human A431 cell lysates showing detection of Phosphotyrosine protein using Mouse Anti-Phosphotyrosine Monoclonal Antibody, Clone G104 (SMC-174). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Phosphotyrosine Monoclonal Antibody (SMC-174) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT. Left: normal, right: EGF treated.

#### **Product Citations (0)**

Currently there are no citations for this product.

#### Reviews

There are no reviews yet.