

MP Biomedicals, LLC

29525 Fountain Parkway Solon, Ohio 44139

Telephone: 440/337-1200 Toll Free: 800/854-0530 Fax: 440/337-1180

mailto: biotech@mpbio.com
web: http://www.mpbio.com

TECHNICAL INFORMATION

Catalog Number: 152355

Genistein

Structure:

CAS # 446-72-0

Synonym: 4',5,7-Trihydroxyisoflavone

ID₅₀ for EGF receptor kinase = 0.7 ug/ml

Solubility: Insoluble in water, ethanol, and acetone. Soluble in water above pH 8 (at 40 micrograms/ml), DMSO at 50 mg/ml, and in DMF. **Warning:** alkaline hydrolysis yields phloroglucinal and p-hydroxyphenyl-acetic acid.

Description: An isoflavone which is a specific inhibitor of tyrosine protein kinases. Also inhibits EGF-stimulated phosphorylation in cultured cells; competitive inhibitor of ATP in other protein kinase reactions. Used to explore signal transduction pathways.¹

References:

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- Huang, J., et al., "Genistein inhibits protein histidine kinase." J. Biol. Chem., v. 267, 15511-15515 (1992).
- Igarashi, M. and Komiya, Y., "Tyrosine phosphorylation and immunodetection of vinculin in growth cone particle (GCP) fraction and in GCP-cytoskeletal subfractions." *J. Neurosci. Res.*, **v. 30**, 266-274 (1991).
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- Zheng, X.-L and Hollenberg, M.D., "Tyrosine Kinase Inhibitor-Sensitive Contractile Action of Ethanol in Gastric Smooth Muscle: Comparison with the Action of Epidermal Growth Factor." *Proceedings of the Association of American Physicians*, **v. 109(1)**, 78-83 (1997).
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