

HPG

Arginine Modifier

Product Description

Irreversible chemical modifier of arginine residues

Catalog number: UP36862A, 100mg
Name: HPG
Formula : p-Hydroxyphenyl Glyoxal
 $C_8H_6O_3, H_2O, M.W.= 168.2$



Storage : +4°C (possible at -20°C), protect from moisture and light. (L)

HPG is a chemical reagent used to modify arginine residues from proteins for structural studies (receptors, ligand interactions...), or before modification of proteins before labeling, crosslinking or reticulation.
 . study of the DNA binding properties of human retinoic acid receptor ([Rachez 1996](#)).

Scientific and Technical Information

- HPG is stable at room temperature for several months, or refrigerated for ca. 1 year. HPG is more resistant to oxidation than p-nitrophenylglyoxal and more water-soluble than phenylglyoxal.
- HPG reacts specifically with arginine residues under mild conditions (pH 7-9, 25°C). We presently do not have a protocol for the use of this material, however, Uptima recommends the reference of [Yamasaki 1980](#) Anal. Biochem. 109, 32-40. This reference describes the material's use, solvent, etc. for the irreversible modification of arginine side chain residues. In brief, the protein should be incubated in the dark for 120min with HPG in 10mM Tris pH8.2.
- The reaction can be monitored at 340 nm (pH 9).
- A quenching step can be performed with 20mM arginine.
- Modified proteins may be further analysed by several means after eventual digestion in fragments (MS, biological assay...) to investigate the role of arginine in the structure of the protein or complexes, or used further to create conjugates.

Other Information

For use *in vitro* only, not for diagnostic.

For any information, please contact Uptima, or your local distributor.
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Related products :
 CelluSep™ : dialysis membranes
 Crosslinkers

Literature:

[Rachez 1996](#) Rachez C, Sautier P, Formstecher P., and Lefebvre P., Identification of Amino Acids Critical for the DNA Binding and Dimerization Properties of the Human Retinoic Acid Receptor, The Journal of Biological Chemistry, 1996, vol.271, 30, 17996-18006
[Yamasaki 1980](#) Yamasaki, et. al. (1980) Anal. Biochem. 109, 32-40

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