



Product Information

Horseradish peroxidase/silver nanoparticle/cysteamine composites (HRP/Ag/Cys)

Cat. No.: X26-06-ZQ2854

Size: 100 mg; 250 mg; 500 mg; 1 g; 5 g

Synonym: HRP/Ag/Cys; Horseradish peroxidase/silver nanoparticle/cysteamine bio-hybrids; HRP anchored cysteamine-stabilized silver nanoparticles; Horseradish peroxidase silver nanoparticle cysteamine bio-sensing composites

This product is for research use only and is not intended for diagnostic use.

Product Information

Description	This multi-component bio-inorganic composite features crystalline silver nanoparticles functionalized with cysteamine linkages and structurally integrated with horseradish peroxidase (HRP) enzyme molecules. The cysteamine component provides stable thiol-metal bonds over the silver facets while exposing primary amines that orient the HRP enzyme layer without disrupting its native catalytic conformation. This structural layout establishes efficient electronic transport coupling between the biocatalytic enzyme centers and the plasmonic metallic carrier.
Source	Custom synthesis
Form	Solid or powder
Purity	≥95%
Impurities	No visible impurities to the naked eye.
Identity	HPLC/MS/NMR
Stability	This product is stable for one year when stored at the recommended temperature in lyophilized powder.
Quality Level	Research grade
Applications	This product can be used for investigating charge transport kinetics across bio-inorganic interfaces, studying enzyme-metal coordination stability, and testing heterogeneous biocatalyst configurations.
Storage	Store at -20°C.