

Product Information

Azidodopamine-functionalized Fe/FeO core-shell nanoparticles

Cat. No.: X26-06-ZQ2997

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

Synonym: Azidodopamine-Fe/FeO; Azidodopamine ligand-functionalized iron/iron oxide core-shell nanoparticles; Clickable azidodopamine-coated zero-valent Fe/FeO nanospheres; Azidodopamine catechol-anchored Fe@FeO magnetic core-shell complexes

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

Product Information

Description	This material features a highly reactive zero-valent iron (Fe) core enclosed within an iron oxide (FeO) passivating shell that is surface-functionalized with an organic monolayer of azidodopamine. The catechol segments of the dopamine link firmly to the iron oxide facets, while the terminal azide groups extend outward to introduce an ideal bio-orthogonal pathway for copper-catalyzed click chemistry. This structural configuration combines strong magnetic properties with an engineered, azide-reactive boundary layer that regulates surface oxidation kinetics.
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 to study core-shell metal oxidation kinetics, validate azide-alkyne cycloaddition click chemistry kinetics on iron oxide templates, and evaluate solid-phase extraction pathways.
Storage	Store at -20°C.