

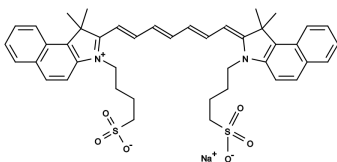
Indocyanine Green *CAS 3599-32-4*

Catalog number: 91, 96
Unit size: 10 mg, 10 g

Product Details

Storage Conditions	Freeze (<-15 °C), Minimize light exposure
Expiration Date	24 months upon receiving

Chemical Properties

Appearance	Green solid
Molecular Weight	774.96
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	789 nm
Emission Wavelength	814 nm

Applications

Indocyanine green (ICG) is a cyanine dye used in medical diagnostics. ICG is used for determining cardiac output, hepatic function, liver blood flow, and for ophthalmic angiography. ICG has a peak spectral absorption close to 800 nm. These infrared frequencies penetrate retinal layers, allowing ICG angiography to image deeper patterns of circulation than fluorescein angiography. ICG binds tightly to plasma proteins and becomes confined to the vascular system. ICG has a half-life of 150 to 180 seconds and is removed from circulation exclusively by the liver to bile juice. A recent study indicated ICG targets atheromas within 20 min of injection and provides sufficient signal enhancement for in vivo detection of lipid-rich, inflamed, coronary-sized plaques in atherosclerotic rabbits. Ex vivo fluorescence reflectance imaging showed high plaque target-to-background ratios in atheroma-bearing rabbits injected with ICG compared to atheroma-bearing rabbits injected with saline.