

Carboxyl Terminated Magnetic Iron oxide Nanocrystals Conjugated to Enzymes

(Catalog # SHE)

Product Specifications

Catalog # SHE: contains proprietary carboxyl terminated magnetic iron oxide nanocrystals (IO) conjugated with enzymes (HRP-horse raddish peroxidase; AP-alkaline phosphatase). The SHE formulation is in borate buffer at pH 7.4 and is available in 10, 15, 20, 25, and 30 nm diameter IO. Please specify the enzyme label and the IO size when placing your order.

Product Introduction:

Ocean NanoTech's carboxyl terminated magnetic iron oxide nanocrystals (IO) of various diameters (10 nm-30 nm) are now available as enzyme (E) conjugated products (SHE). The SHE formulation is in borate buffer at pH 7.4 and is available in 10, 15, 20, 25, and 30 nm diameter IO using HRP or AP.

SHE refer to Ocean's enzyme (E) conjugated water soluble iron oxide (IO) nanocrystals. The enzymes (HRP-horse raddish peroxidase; AP-alkaline phosphatase) are covalently attached to carboxyl groups on the iron oxide nanocrystal surface at a minimum IO:E ratio of 1:3. The SHEs are prepared in borate buffer, pH 7.4 and are stable in dilute (10 mM or less) PBS and Tris buffer, pH 7.4. Other buffers had not been tested.

The SHEs are provided in aqueous solutions in borate buffer at 1 mg/mL based on the iron content. These can be used directly in a biological assay. The products of this category are packed with 1 mg/mL BSA and 0.02% NaN₃ (unless customer requests otherwise). The SHEs can be magnetically collected from solution using [Ocean's magnetic separator](#). The SHEs are for RESEARCH USE only and NOT intended for humans.

Related Ocean NanoTech Products

Visit our web site for additional information related to this product including the following items:

IAB, IPG, QSH, QSA, SHP, SHA, Blocking buffers (Catalog # BBB and BBG)

MNP KIT CATALOGUE #		MAGNETIC SEPARATION DEVICE
ICK-10-005	ICK-25-005	SuperMag Separator™
ICK-15-005	ICK-30-005	SuperMag Multitube Separator™
ICK-20-005	ICK-50-005	SuperMag Extra Separator™

Molar concentration of Fe in the different sizes of IO Nanocrystals		
Crystal Size (nm)	Nanocrystal Molar Concentration (nmol) of 1 mg Fe	Nanocrystal Molar Concentration (nmol) for 50 mg
10	0.91	45.5
15	0.27	13.5
20	0.11	5.5
25	0.058	2.9
30	0.034	1.7
50	0.0073	0.365



WARRANTIES AND DISCLAIMER

The Ocean Nano Tech SHE products (“Product”) is warranted to operate or perform in conformance with published Product specifications at the time of sale, as set forth in the Product documentation, specifications and/or accompanying package inserts (“Documentation”) and to be free from defects in material and workmanship. Unless otherwise expressly authorized in writing, products **are supplied for research use only**. No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the original purchaser of the Product (“Buyer”).

No other warranties, express or implied, are granted, including without limitation, implied warranties of merchantability, fitness for any particular purpose, or non infringement. Buyer’s exclusive remedy for non-conforming Products during the warranty period is limited to replacement of or refund for the non-conforming Product(s).

There is no obligation to replace Products as a result of (i) accident, disaster or event of force majeure, (ii) misuse, fault or negligence of or by Buyer, (iii) use of the Products in a manner for which they were not designed, or (iv) improper storage and handling of the Products.

Current versions of product instructions are available at www.oceannanotech.com. For a faxed copy, call 479-431-4130 or 479-751-5500.

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