

Blockmaster™ CE510 [Code No. : J-CE510RAN]

Blockmaster™ CE210 [Code No. : J-CE210RAN]

PRODUCT DESCRIPTION

Blockmaster™ CE Series is a synthetic, protein-free and serum free blocking reagent that reduces non-specific bindings of proteins and enhances ligand activities to realize high signal-to-noise (S/N) ratio.

Blockmaster™ CE Series consists of our proprietary aqueous polymer with an amine group at one end for chemical coupling to solid surface.

Blockmaster™ CE Series can be used either as a substitute for BSA or along with BSA.

Features

- Chemically synthesized aqueous polymer with amine (-NH₂) group at one end
- Animal-free source, virus- and prion-free
- Low non-specific binding (NSB) of proteins
- Significantly enhances S/N ratio
- High lot-to-lot consistency
- Uninfluential to avidin-biotin reactions

Example Applications

Immunoassay, ligand coupling, signal enhancement

SPECIFICATIONS

Molecular weight	CE510: 5,000 (approx.) / CE210: 2,000 (approx.)
Package volume	100 mL
Solid content in solution	2 wt%
Solvent	Water containing 0.1% ProClin950 as a preservative
Appearance	Colorless or slightly yellow, transparent
Expiration date	Printed on the label

STORAGE

Blockmaster™ CE Series is stable when stored at 2-8 °C. Do not freeze the vial.

DISPOSAL

Observe all federal, state and local laws when considering most appropriate disposal method.

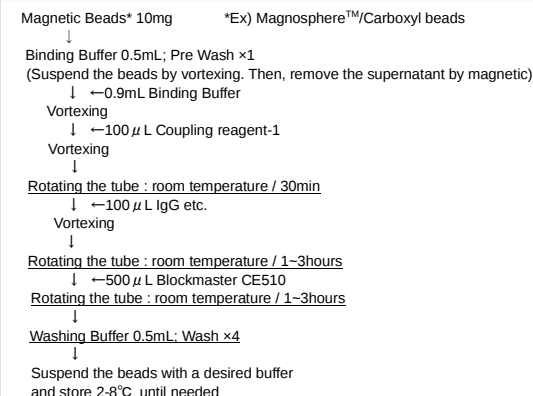
IMPORTANT NOTICE

This product is for research use only and not intended for therapeutic or *in vivo* diagnostic use.

RECOMMENDED PROTOCOL

Reagent and equipment requirement

- Binding Buffer :
0.1M MES buffer (pH5.0)
MES : 2-(N-morpholino)ethanesulfonic acid
- Coupling Reagent-1:
10mg/mL EDC in ice-cooled Binding buffer
Prepared just before the coupling reaction
- Blocking Reagent
Blockmaster CE510
- Washing Buffer : TBS-T
(25mL Tris-HCl + 150mM NaCl
+ 0.05% Tween20 ,pH7.2)
- Ligand Solution : Anti-AFP IgG
- Magnetic Separator
- Vortex tube mixer
- Tube rotator



REFERENCE

1. Thangavel Lakshmi Priya, Makoto Fujimaki, Subash C. B. Gopinath, Koichi Awazu, Yukichi Horiguchi and Yukio Nagasaki, High-performance waveguide-mode biosensor for detection of Factor IX uses PEG-based blocking agents to suppress non-specific binding and improve sensitivity, *Analyst*, 2013 May 21;138(10):2863-70 (DOI:10.1039/C3AN00298E)
2. Xiaofei Yuan, Dolça Fabregat, Keitaro Yoshimoto and Yukio Nagasaki, High PEGylation Efficiency of PentaethyleneHexamine-end Poly(ethyleneglycol)(mPEG-N6) for Active-ester Surface, *Colloid and Surface B: Biointerface*, 92, 25-29(2012)'doi: (10.1016/j.colsurfb.2011.11.013)
3. Xiaofei Yuan, Dolça Fabregat, Keitaro Yoshimoto and Yukio Nagasaki: Development of a high-performance immunolateral based on "soft landing" antibody immobilization mechanism, *Colloid and Surface B: Biointerface*, vol. 9945-52(2012)(10.1016/j.colsurfb.2011.09.040)
4. Masaki Kubota, Keitaro Yoshimoto, Yuan Xiaofei, Yukio Nagasaki: Improvement of the thermal stability of streptavidin immobilized on magnetic beads by the construction of a mixed poly(ethylene glycol)tethered-chain layer, *Polymer Journal*, 43, 493-496(2011).
5. Xiaofei Yuan, Dolça Fabregat, Keitaro Yoshimoto, Yukio Nagasaki, Design of Highly Functional Antiferritin-immunolateral by Hybridization of Antiferritin/Mixed-PEG Polymers onto Polystyrene Submicroparticles, *Biomaterials Chapter 13*, pp 243-258 ACS Symposium Series, Vol. 1054 (2010).
6. Yuan Xiaofei, Fabregat Dolça, Yoshimoto Keitaro, Nagasaki Yukio: Efficient Inhibition of Interfacial Nonspecific Interaction to Create Practically Utilizable High Ferritin-Response Immunolateral, *Analytical Chemistry*, 81 10097-10105(2009).
7. Yuan Xiaofei, Yoshimoto Keitaro, Nagasaki Yukio: High-performance Immunolateral Possessing A Mixed-PEG/Antibody Co-immobilized Surface: High Sensitive Ferritin Immunodiagnosics. *Analytical Chemistry*: 81(4), 1549-1556(2009).
8. Furusho Hitoshi, Kitano Katsuhisa, Hamaguchi Satoshi, Nagasaki Yukio: Preparation of Stable Water-Dispersible PEGylated Gold Nanoparticles Assisted by Nonequilibrium Atmospheric-Pressure Plasma Jets. *Chemistry of Materials*: 21(15),3526-3535(2009).
9. Nagasaki Yukio, Kobayashi Hiroshi, Katsuyama Yoshinori, Jomura Tomoko, Sakura Takeshi: Enhanced immunoresponse of antibody/mixed-PEG co-immobilized surface construction of high-performance immunomagnetic ELISA system. *Journal of Colloid and Interface Science* 309: 524-530(2007).

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