



## Product Description

### Casein Buffer 20X-4X Concentrate #CBC1, biotin free

**CBC1** is a concentrated stable liquid filterable formulation of universal true biotin free and IgG free Casein Colloid Buffer. Casein in CBC1 is highly purified in proprietary manufacturing process that ensures complete removal of biotin, IgG, lipids and other substances and/or reactive species that may interfere with SA-PolyHRP compromising activity or stability of detection conjugates.

Recommended use includes

(i) Blocking\* of the solid phase (immunoplates, blotting membranes, other porous and non-porous materials) made as separate blocking procedure after coating with capture reagent (binding antibody or antigen), in sense of blocking free vacant sites onto immunosorbent surface. This will also improve long-term stability of immobilized capture reagent, especially after drying.

\* alternatively consider dedicated Drying Buffer/Stabilizer, Casein based biotin-free, ready-to-use, our item #DBS-C

(ii) Application of **CBC1** as constituent part of the diverse Diluent formulations with both specimen/calibrator and detecting reagents/conjugates. In this case casein will eliminate adverse matrix effects with different complex specimens and block non-specific binding (NSB) of detecting conjugates to immunosorbent in the absence of analyte.

1 volume of **CBC1** mixed with 3-to-19 volumes of your own diluent or simple PBS will yield 4-to-20 volumes of Casein Diluent/Blocker depending on desired working strength. **CBC1** is basically not compatible with diluents containing > 1 mM Ca<sup>++</sup> and other di-/multivalent cations.

**CBC1** will effectively eliminate NSB/backgrounds in ELISA, blotting, ICT and IHC applications. Please note, that casein will block protein-to-protein binding of **truly non-specific** origin. **CBC1** will not prevent essentially **specific** interactions (e.g. through HAMA and/or heterophilic antibodies) that may also cause false positive (sandwich assays) or false negative (competitive assays) reactions. For neutralizing HAMA add CBC based diluent with proven HAMA Blocker, e.g. our item #HAMAB.

**CBC1** is biotin-free and therefore is ideally compatible with enhanced biotin-streptavidin detection systems giving no drop in detecting activity with streptavidin conjugate. On the contrary, diluents made of CBC may boost positive signals with Streptavidin-PolyHRP conjugates which along with lowering backgrounds gives complementary effect significantly improving overall signal-to-noise ratios.

**CBC1** used as a component of liquid ready-to-use formulations features stabilizing effect with detecting streptavidin & antibody/antigen conjugates and controls. **CBC1** is especially useful for stabilizing larger PolyHRP conjugates. It is used in our SA-PolyHRP Stabilizers SA1, SA1-HTS and SA1-HTS-E.

**CBC1** is stable at +4°C during at least 3 years from the date of manufacture.

**CBC1** is essentially 5,5% (w/v) 0,2/0,45µm-filterable colloidal solution of biotin-free and IgG free casein balanced in a neutral salt buffer. Product contains non-mercury safe broad spectrum microbicide 5-Bromo-5-nitro-1,3-dioxane as approved IVD preservative at 0,12%.

**CBC1** is filtered through 0,45 µm at the end of the manufacturing process.