

Streptavidin Beads (from mTRAP™ Maxi)

Catalog No: 29009

Format: 3 ml

Quality Control: Active Motif's Streptavidin Beads (Catalog No. 29009, 3 ml and Catalog No. 29010, 1.6 ml) are uniform, colloiddally stable, monodispersed, non-porous spheres made by a proprietary core-shell method. Magnetite (Fe₃O₄) is coated onto this core particle and encapsulated with proprietary polymers. Streptavidin Magnetic Beads are nominally 1 µM microparticles (diameter) with highly active streptavidin bound to the surface. The beads are supplied at approximately 1% solids (10 mg/ml) in a storage buffer of 50 mM Tris, pH 8, 150 mM sodium chloride, 0.05% sodium azide and a stabilizing detergent at 0.1% concentration.

The activity of bound streptavidin is measured by binding of biotinylated fluorescein (BF). Quantitative amounts of BF in the supernatant are measured on a fluorometer after incubating with and without streptavidin magnetic beads present. The biotin binding capacity of our Streptavidin Beads is approximately 2,500 to 3,500 pmol/mg of biotin.

The binding capacity of our Streptavidin Beads has also been determined for biotinylated oligonucleotides. Quantitative amounts of biotinylated oligonucleotide in the supernatant are measured on a spectrofluorometer after incubating with and without Streptavidin Beads present. The A₂₆₀ readings are used to calculate the biotin binding capacity of the beads. Biotin binding capacity is reported in picomoles of biotinylated oligonucleotide per microliter (µl) of streptavidin magnetic beads (pmol/µl).

The binding capacity of the Streptavidin Beads has also been determined using the Poly T PNA Probe included in Active Motif's mTRAP mRNA Isolation Kits and with oligo dT. The binding capacity of the Streptavidin Beads is approximately 1 nmol of Poly T PNA Probe (or DNA oligonucleotide) per mg of beads, i.e. approximately 10 pmol of probe/µl of beads.

Storage and Guarantee: Streptavidin Beads are stable over a temperature range of 4-85°C and a pH range of 5.0-9.0. Temperatures outside this range can cause the beads to clump and be destroyed. Do not freeze the beads. Streptavidin Beads have excellent chemical stability in several different solutions. The beads are compatible with additives such as preservatives, buffers and stabilizers. They can be diluted in alcohol-water mixtures, acids (to about pH 5), bases (to about pH 9) and some organic solvents. Solvents such as ketones (e.g. acetone or methylethylketone) or non-polar organic solvents (e.g. toluene or benzene) should be avoided. DMSO and DMF at concentrations below 20% do not damage the particles.