PEGylated protein ELISA kit

Validated, Complete Assay for the Sensitive Detection of a Diverse Set of PEGs in Biological Samples

The PEGylated Protein ELISA kit is a competitive assay specific to the backbone of poly(ethylene glycol) (PEG) and has been validated for use with a wide variety of PEG molecules including linear and branched forms as well as free and conjugated forms. As expected, the assay is more sensitive to higher molecular weight PEG molecules due to the repeating characteristics of the backbone. The assay uses a monoclonal antibody to PEG pre-coated on a microtiter plate. The antibody binds in a competitive manner the PEG or PEGylated protein in the sample or the PEG covalently linked to biotin. After incubation at room temperature the excess reagents are washed away and a streptavidin HRP conjugate is added to bind to the biotinylated PEG bound to the antibody. After a second wash to remove excess HRP substrate is added. An HRP-catalyzed reaction gener-ates a blue color in the solution. The reaction is stopped with stop solution and the resulting yellow color is read at 450nm. The amount of signal is inversely proportional to the concentration of PEG.

Poly(ethylene glycol) (PEG) is a widely used polymer in drug delivery systems and is often directly conjugated to a drug therapeutic. PEGylation of drug therapeutics is desirable as it has been found to increase the retention time, reduce the immunogenicity and increase stability towards metabolic enzymes. The PEGylated Protein ELISA kit is applicable for drug development and pharmaceutical manufacturing applications including drug formulations, pharmacokinetics analysis, drug comparison, lead candidate identification, lot release criteria and in-process QC studies. At this time, there are no long-term studies revealing the fate of this polymer in the body. The need for toxicology studies that would determine the accumulation of the metabolized PEGylated therapeutics in various tissues has been identified.

Citations: 15 View Online »

- Validated for a wide range of MW linear and branched PEGs, both in free form and when conjugated to proteins
- Highly sensitive, measure as low as <1ng/mL of PEGylated proteins
- Quantify PEGylated target molecules in complex matrices to monitor drug levels or its accumulation in tissue
- High-throughput format, analyze up to 35 samples in duplicate results in just 2 hours

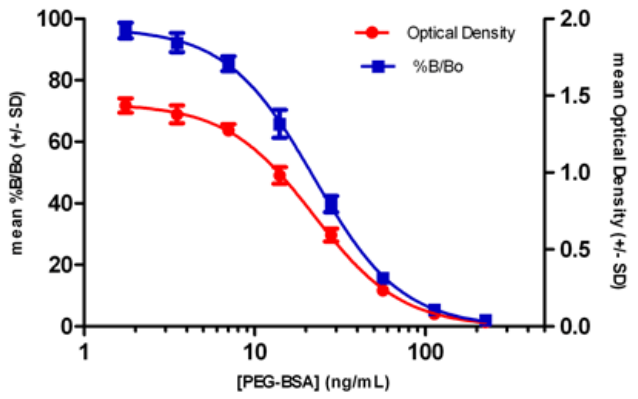
Ordering Information

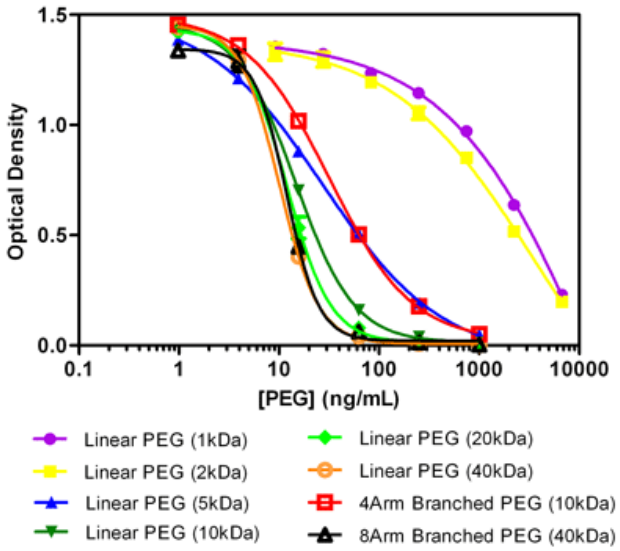
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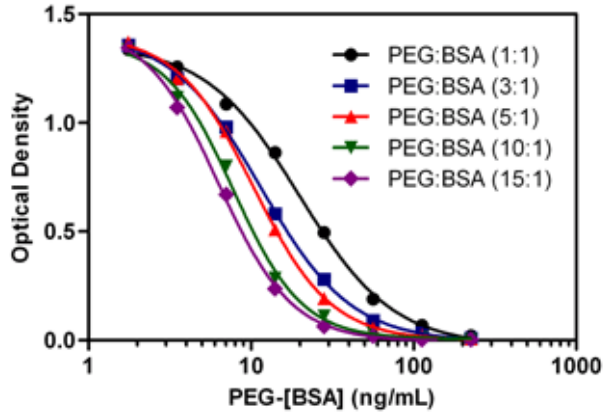
ADI-900-213-0001	96 wells

Manuals, SDS & CofA

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Optical Density
%B/Bo
mean %B/Bo (+/- SD)
mean Optical Density (+/- SD)
[PEG-BSA] (ng/mL)


Optical Density
[PEG] (ng/mL)
Linear PEG (1kDa)
Linear PEG (2kDa)
Linear PEG (5kDa)
Linear PEG (10kDa)
Linear PEG (20kDa)
Linear PEG (40kDa)
4Arm Branched PEG (10kDa)
8Arm Branched PEG (40kDa)


PEG:BSA (1:1)
PEG:BSA (3:1)
PEG:BSA (5:1)
PEG:BSA (10:1)
PEG:BSA (15:1)
Optical Density
PEG-[BSA] (ng/mL)

Handling & Storage

Long Term Storage +4°C

Shipping Blue Ice

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name	Polyethylene glycol
Application	Colorimetric detection, ELISA
Application Notes	For the measurement of PEGylation and quantitative determination of PEGylated molecules in plasma, serum, tissue and other biological samples.
Assay Time	2 hours
Compatibility	This product is compatible with the **Absorbance 96 Plate Reader**.
Contents	Microtiter Plate, PEG-BSA Assay Control, Biotinylated PEG, Assay Buffer 39, Conjugate, Wash Buffer 3, TMB Substrate, Stop Solution 2, Plate Sealer
Species Reactivity	Species independent
Wavelength	450 nm

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