

Generic Protease Assays

Proteases assay is widely used for the investigation of protease inhibitors, quantifying protease activity in cell or tissue extracts, and detecting protease activity in commercial products for quality inspection purpose. It is allow useful in cell biology i.e. for several cell matrix activities (collagenase).

See also section Adhesion assays
Cell culture (Collagene),
and primary antibodies.

Green and Red fluorimetric Protease Assay Kits

The EnzoLyte™ Green and Red fluorophore Protease Assay Kits use a casein derivative that is heavily labeled with a fluorophore, either HilyteFluor488 or TAMRA, resulting in an almost total quenching of the fluorescence of the conjugate. Protease-catalyzed hydrolysis relieves this quenching conjugate, yielding brightly fluorescent dye-labeled peptides. The increase in fluorescence intensity is directly proportional to protease activity. Casein, the major protein of bovine milk, has been shown more similar to the physiological substrates for proteases than synthetic peptides.

The EnzoLyte™ fluorophore Protease Assay Kit does not require any separation steps and can be used to continuously measure the kinetics of a variety of exopeptidases and endopeptidases.

The assays are performed in a convenient 96-well microplate format. 384-well or 1536-well format can be used as well with minor modifications.

Two kits are available with 2 fluorescent heavily labeled caseins :

HiLyte Fluor 488™ is a pH-insensitive green fluorophore, which can be continuously monitored at excitation/emission = 488 nm/520 nm after casein cleavage.

5(6)-TAMRA, a rhodamine derivative, which yield brightly red fluorescence at excitation/emission wavelengths = 546 nm/575 nm.

Description	Cat.#	Qty
EnzoLyte™ green Protease Assay Kit	BK9620	500 tests
EnzoLyte™ Red Protease Assay Kit	BK9630	500 tests
EnzoLyte™ Green FP Protease Assay Kit "Fluorescence Polarization"	HT1290	500 tests

Each kit contains :
Fluorescent labeled casein with high ratio of dye/protein
Trypsin (as positive control)
Assay buffer
Detailed protocol

Human Serum Proteins & Biomarkers EIA kits

Name (alphabetical)	**Sample Size	Assay range	Assay time	Cat.#	Qty
Albumin (Urine) Human	25 µl	1-100 µg/mL	40 min	BQ1590	96 tests
Adiponectin/Acrp30/Adipolean	50 µl	0.5-12000 pg/ml	225 min	BQ1600	96 tests
gAdiponectin/gAcrp30	50 µl	1-100 ng/ml	225 min	BQ1610	96 tests
AlphaFetoprotein(AFP)	25 µl	1-200 IU/mL	70 min	BP8350	96 tests
Angiogenin	20 µl	100-2000 pg/ml	225 min	BQ1630	96 tests
Angiopietin-2	100 µl	200-8000 pg/ml	225 min	BQ1640	96 tests
Beta Amyloid 1-40	100 µl	15-1000 pg/ml	overnight	BQ1650	96 tests
Beta amyloid 1-42	100 µl	6.5-400 pg/ml	overnight	BQ1660	96 tests
Beta-2 Microglobulin	100 µl	1.5-200 ng/ml	70 min	BQ1670	96 tests
Bone Morphogenic Protein 7 (BMP-7)	20 µl	0.3- 8 ng/ml	195 min	BQ1680	96 tests
Cyclooxygenase 2(Cox-2)	100 µl	2-275 ng/ml	120 min	BQ1700	96 tests
Ferritin	10 µl	2-800 ng/ml	40 min	BQ1710	96 tests
IGF Binding Protein-1(IGFBP-1)	20 µl	0.4-160 µg/L	70 min	BQ1720	96 tests
Leptin, human	50 µl	0.25-10 ng/ml	225 min	BQ1730	96 tests
Resistin/FIZZ3	20 µl	45-2000 pg/ml	165 min	BQ1740	96 tests
Sex Hormone Binding Glob.(SHBG)	20 µl	0.2-300 nmol/L	60 min	BQ1750	96 tests
Transferrin (Tf)	20 µl	15-500 ng/ml	105 min	BQ1760	96 tests

** : due to high sensitivity and the assay range, samples for most kits have to be diluted.