PROTEOSTAT® PDI assay kit

A simple, homogenous assay for screening modulators of PDI enzymatic activity

The PROTEOSTAT® PDI assay kit provides a simple, homogenous assay for screening modulators of PDI enzymatic activity. This is accomplished by monitoring PDI-catalyzed reduction of insulin in the presence of Dithiothreitol (DTT), resulting in the formation of insulin aggregates which then bind avidly to the red-emitting fluorogenic PROTEOSTAT® PDI detection dye. Relative to analogous turbidimetric assays of PDI activity, the fluorescence-based assay provides a vastly improved assay signal window, improved lower detection limit, and superior Z'-score (>0.8). Intra-plate and inter-plate CVs using the assay are typically 3-5%. Human recombinant PDI enzyme (EC 5.3.4.1) and the PDI inhibitor, bacitracin, are included in the kit, as well as all reagents necessary for monitoring changes in PDI activity. The PROTEOSTAT® PDI assay kit is capable of providing a quantitative readout of PDI enzymatic activity in a robust and high-throughput fashion and can be applied to identification of PDI inhibitors from chemical libraries. It is useful in the research of oxidative damage, ER stress and unfolded protein response (UPR).

Citations: 22 View Online »

- Homogenous, mix-and-read assay for 96-well and 384-well plates
- Widely cited

Ordering Information

Order Online »

ENZ-51024-KP050	50 tests
ENZ-51024-KP002	2x96 tests

Manuals, SDS & CofA

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Handling & Storage

Use/Stability	With proper storage, the kit components are stable up to the date noted on the product label. Store kit at -20˚C in a non-frost free freezer, or –80˚C for longer term storage.
Handling	Protect from light. Avoid freeze/thaw cycles.
Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Protein disulfide isomerase
Application	Fluorescent detection
Application Notes	This kit provides a simple, homogenous assay for screening modulators of protein disulfide isomerase (PDI) enzymatic activity.
Contents	PROTEOSTAT® PDI detection reagent PDI (human) (recombinant) Insulin (Lyophilized) Bacitracin (Inhibitor Control, Lyophilized) PBE buffer Stop reagent DTT (10mM) Deionized water
Quality Control	Using the procedure described in the manual, a sample PROTEOSTAT® PDI assay kit is used to assay the following: (1) Insulin with PDI; (2) Insulin without PDI; and (3) Insulin with PDI and bacitracin. The Z'-factor is greater than 0.8. PDI is inhibited by at least 50% with bacitracin.
Technical Info / Product Notes	Enzo and PROTEOSTAT® are trademarks of Enzo Life Sciences, Inc. Several of Enzo's products and product applications are covered by US and foreign patents and patents pending.
UniProt ID	P07237 (human)

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