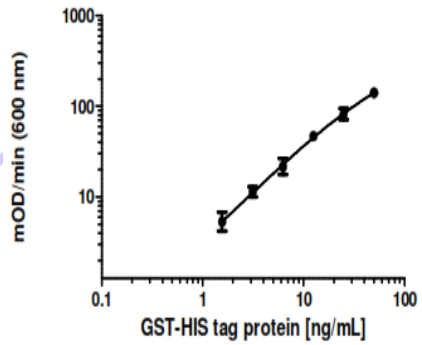
His-Tag (Recombionat GST -His tag fusion protein) ELISA kit , 96 tests# 800-440-HIS

This ELISA kit is designed to measure recombinant proteins containing His-tag (Hisx6 or poly -his) and GST -tag. It is a sandwich ELISA kit where the recombinant proteins (His-GST tags) are captured with one tag and detected with the other tag. Samples are either crude cell lysate, partially or purified His-tag proteins or E. coli or mammalian cells. Standards contain protein with known concentration of His-tag. This kit will not work if the proteins have only His-tag. Most biological buffers such 6M GdN-HCl (up to 0.1%, 7M Urea (up to 10%), 250mM Imidazole (up to 2.5%), mammalian detergents up to 50% and yeast detergents (up to 2%) Glutathione are compatible with this kit. Therefore, this kit is extremely suited for high thruput analyses of GST-fusion protein expression.



Intrassay CV 8.5%
Interassay CV 4%
Specific for GST-His tag protein containing the GST-tag and His-tag at the N or C-terminus.

ELISA Kit Features

- Anti-His tag pre-coated, stabilized, ready-to-use 96-well strip plate,.
- Lyophilized His-GST-fusion protein (2 ug) standard diluted to make 1-50 ng/ml standards
- Samples can be tested at the cell-lysate stage or before and after affinity purification over glutathione affinity column
- Sample size 50 ul (direct or diluted). Samples made in Gdn-HCl, 7M Urea (up to 5%), 50 mM Glutathione buffer (0.1%) are compatible with this kit.
- 4 incubation steps (4 hrs 15) at room temp
- Sensitivity ~ 0.5 ng/ml of GST-His-fusion protein
- Contains all necessary reagents. Shelf life ~12 months.

For in vitro research use only.

Assay Procedure:

Allow all reagents to reach room temperature. Arrange and label required number of strips. Please consult the detailed manual provided with the kit for "FINAL UPDATED PROTOCOL".

Step 1. Pipet 50 ul standards, pre-diluted samples into each well. Cover and incubate for 2 hrs at room temp;
Step 2. Aspirate and wash 3 times; Add 50 ul of detection antibody to all wells. Cover and incubate for 1 hr at room temp.
Step 3. Aspirate and wash 3 times; Add 50 ul HRP-conjugate to all wells. Incubate for 1 hr at room temp.
Step 4 Aspirate and wash 5 times. Add 100 ul of TMB substrate solution to all wells. Gently mix and incuba te for 1 0-20-mins at room temperature. Blue color develops in standards and positive wells.
Step 5 Add 100 ul Stop Solution to all wells. Blue color turns yellow. Read at 450nm within 15-30 mins.

General Information

Expression of genes in E. coli, yeast, or baculovirus offers a convenient system to produce large amounts of recombinant proteins that may otherwise be difficult to isolate from natural cells and tissues. Very often antibodies to these newly identified proteins are not available to study its biochemical properties, monitor protein expression, and purification. In order to circumvent this problem, small proteins (bacterial GST, MBP, Thioredoxin, b-Galactosidase, VSV-Glycoprotein etc) are often cloned along with the target gene. Proteins are expressed as fusion proteins. Antibodies to these fusion-tags are already available to monitor fusion protein expression and purification. Therefore, fusion-tags serve as universal tags much like secondary antibodies. Many tags have their own characteristics. GST-fusion proteins can bind to glutathione-agarose. Therefore, a high degree of purification of fusion protein can be achieved in just one affinity purification step. Purity of fusion proteins can be followed using anti-fusion-tag antibodies. Very often, fusion proteins are directly injected into animals to generate antibodies. Some fusion tags can be removed later by treatment with enzymes to generate tag-free recombinant proteins.

Related ELISA kits

Catalog#	ProdDescription
800-420-GFP	Green Fluorescent Protein (GFP-fusion protein) ELISA Kit, 96 tests, Quantitative
800-440-HIS	Histidine-tag (poly-His/Hisx6) Protein (His-tag-fusion protein) ELISA Kit, 96 tests, Quantitative
720-100-GSG	Goat Anti-GST IgG (total) ELISA Kit
720-120-GSC	Chicken Anti-GST IgG (total) ELISA Ki
#800-440-HIS-flr	140414A
#720-110-GSR	Rabbit Anti-GST IgG (total) ELISA Kit, 96 tests,
#800-100-GST	Glutathione Transferase (GST-fusion protein) ELISA Kit,

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