# Nano-Glo® HiBiT Lytic Detection System

## Accurate Quantitation of HiBiT-tagged Proteins in Cell Lysates

The Nano-Glo® HiBiT Lytic Detection System directly quantifies HiBiT-tagged proteins in cell lysates with a simple add-mix-read protocol. The assay is complete in minutes and provides high sensitivity and broad dynamic range.

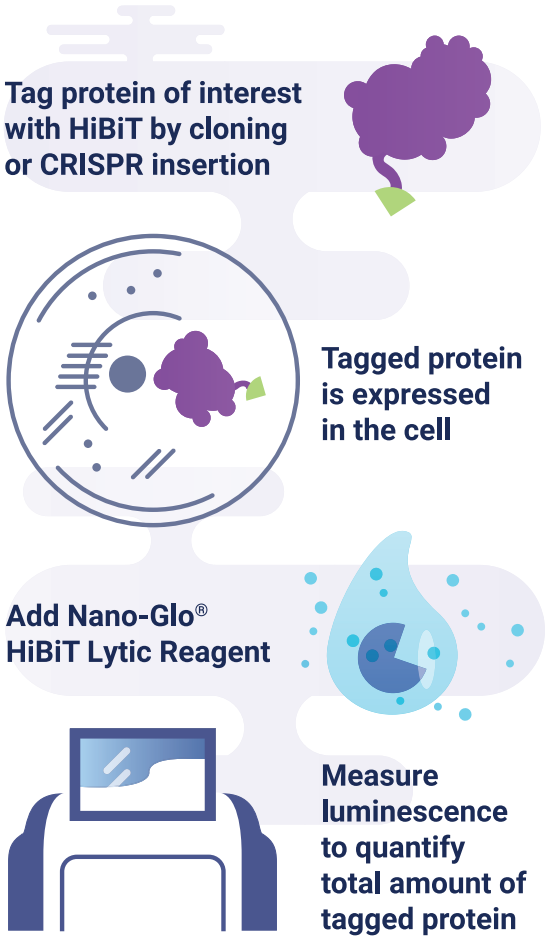
First, the 11-amino acid HiBiT peptide tag is added to the protein of interest using either traditional cloning or CRISPR/Cas9 genome editing approaches. Once expressed, the total amount of HiiBiT-tagged protein is measured by adding the Nano-Glo® HiBiT Lytic Detection Reagent.

The detection reagent lyses the cells, and provides luciferase substrate and the complementing polypeptide LgBiT, which spontaneously interacts with the HiBiT tag to reconstitute the bright, luminescent NanoBiT® enzyme. Luminescence is directly proportional to the amount of HiBiT-tagged protein in the cell lysate over seven orders of magnitude, and the glow-type signal is stable for hours.

### *Simple, Senstive Method Monitors Protein Abundance*

The Nano-Glo® HiBiT Lytic Detection System is a highly quantitative assay with fewer processing steps than standard antibody-based detection methods. The assay can be completed in minutes and the broad linear dynamic range enables accurate quantification of tagged proteins regardless of expression level. Because of this sensitivity, increases and decreases in protein abundance can be detected down to endogenous levels. Example applications include monitoring of:

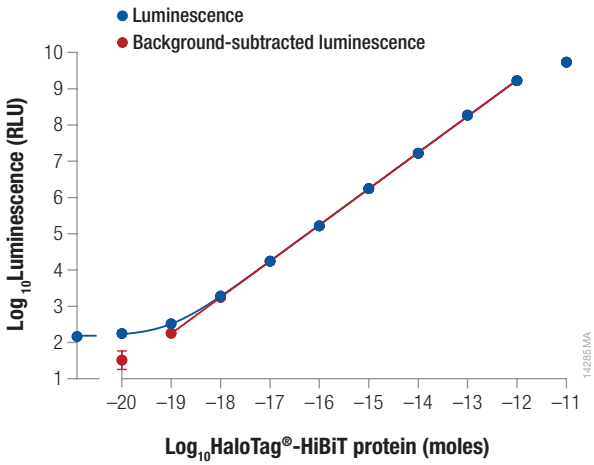
- Regulated protein expression
- Targeted protein degradation
- Protein levels from gene expression experiments
- Viral infection
- Protein abundance following pull-downs or transient transfection




Nano-Glo® HiBiT Lytic Detection System protocol.

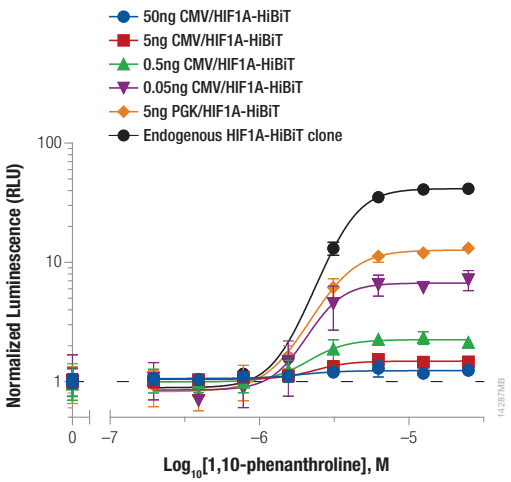
## Precise Protein Quantification

The broad linear dynamic range accurately quantifies tagged proteins regardless of expression level to measure changes in protein abundance. With a limit of detection of less than $10^{-19}$ moles, the Nano-Glo® HiBiT Lytic Detection System can quantify even low-abundance proteins at endogenous levels of expression.




## Detects Proteins Under Endogenous Regulation

Using CRISPR/Cas9 gene editing, HiBiT-tagged proteins can be expressed under endogenous regulatory conditions, reducing overexpression artifacts and maintaining proper stoichiometry with other endogenous binding partners or regulatory machinery.




## For more information about the Nano-Glo® HiBiT Lytic Detection System, visit:
## www.promega.com/HibitLytic

### Ordering Information

| Product | Size | Cat.# |
|---|---|---|
| Nano-Glo® HiBiT Lytic Detection System | 10ml | N3030 |
| | 100ml | N3040 |
| | 10 × 100ml | N3050 |



PROMEGA CORPORATION • 2800 WOODS HOLLOW ROAD • MADISON, WI 53711-5399 USA • TELEPHONE 608-274-4330
www.promega.com 