HiBiT protein tagging system combines with CRISPR/Cas9, 12/17

December 2017—Promega Corp.'s bioluminescent HiBiT Protein Tagging System can be combined with CRISPR/Cas9-mediated gene editing to tag endogenous proteins and simplify their study under natural expression conditions, as demonstrated in a study published in *ACS Chemical Biology* (Schwinn MK, et al. Epub ahead of print Sept. 21, 2017. doi:10.1021/acschembio.7b00549).

HiBiT enables sensitive detection of tagged proteins down to endogenous expression levels. The small 11 amino acid HiBiT tag is added to a protein of interest, which can then be detected and quantified with a simple luminescent signal. The tag's small size makes it easy to insert using CRISPR/Cas9 gene editing, and when combined with the detection reagent, the resulting bioluminescence is sensitive enough to measure endogenous protein expression in minutes without the need for antibodies.

"HiBiT really represents a breakthrough in the way we measure protein trafficking or protein secretion," Julian Sebag, PhD, University of Iowa Carver College of Medicine, said in a statement from Promega. Dr. Sebag is using the HiBiT tag for research in developing novel treatments for obesity and diabetes.

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