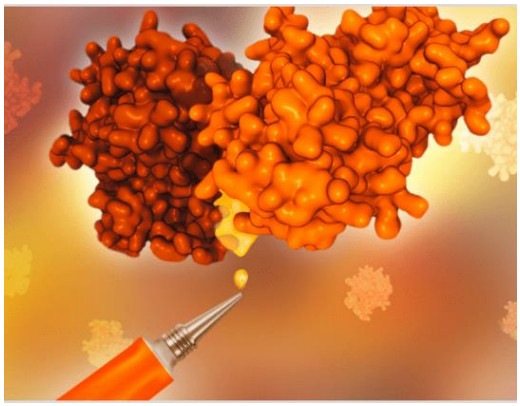
Targeted Protein Degrader (TPD) R&D Solution Services

EFFECTIVELY DEGRADE THE DISEASE TARGET

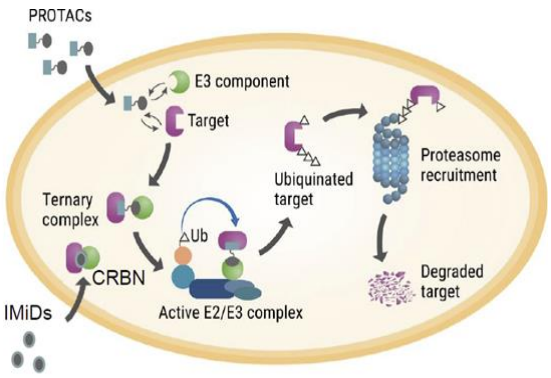


TARGETED PROTEIN DEGRADERS

Targeted Protein Degraders (TPDs) represent a class of small molecules that exploit the cellular endogenous ubiquitin-proteasome and autophagy-lysosome pathway system to induce protein degradation of specific disease-causing proteins.

In recent years, there has been an emergence of various classes of molecules, such as PROTACs (Proteolysis-targeting Chimeras), molecular glues, CHAMP (Chaperone-mediated Protein Degradation/Degrader), LYTAC (Lysosome-targeting Chimeras), among others.

PROTAC and molecular glues cause protein degradation



PROTACs and other TPDs provide a rapid and reversible chemical approach to modulate protein function, offering significant potential in the field of drug innovation. The advent of TPDs has revolutionized the therapeutic landscape by introducing a novel method for treating diseases such as cancer, inflammation, or neurodegenerative disorders arising from aberrant expression of pathogenic proteins. Unlike traditional drugs that can only target approximately 20% of the proteome, this innovative technology holds promise in addressing the remaining 80%, which is currently considered undruggable using conventional inhibitors or agonist/antagonist approaches.

The TPD discovery technology platforms at PicoImmune laboratories encompass a diverse range of target protein ligands. Furthermore, PicoImmune has established TPD biological screening and testing platforms throughout the pre-clinical stages. PicoImmune is confident in delivering efficient, cost-effective, and professional services to support our clients in successfully achieving their drug development milestones.

Below are our solutions for Targeted Protein Degrader Drug discovery, TPD service offerings. Please connect with our specialists at AxelaBio.com; or email to: support@AxelaBio.com.

OUR ASSAY PLATFORMS

- Traditional **Western Blot** (SDS-PAGE based, Li-COR Imaging)
- Quantitative **Simple Western** to Quantify Degradation of Any Protein

- **In-Cell Western** to Quantify Degradation of Any Protein
- **AlphaLISA** or HTRF Human CRBN Binding Assay
- AlphaLISA or HTRF Human VHL Binding Assay
- **HTRF** xIAP BIR3 Binding Assay
- HTRF MDM2 Binding Assay
- HTRF cIAP1 Binding Assay
- HTRF cIAP1 Binding Assay
- Live Cell **NanoBRET** Target Engagement Intracellular E3 Ligase Assays
- Live Cell NanoBRET Ubiquitination Kinetics with PROTACs and Glues
- **UbiQuant** ELISA and AlphaLISA assays for Measuring Protein Ubiquitylation
- **IHC Analysis** of Protein Degradation in Tumor Tissues
- High-Throughput **Flow Cytometry**
- **RPPA** (Reverse Phase Protein Array for 500 protein targets) for Protein Degradation and Specificity
- Cellular **Thermal Shift Assay** (CETSA)
- Cell **Permeability** Efficacy Assay (PAMPA, Caco-2, MDCK cells)
- Human Cancer Cell Panel Screening
- Target Protein Knockdown (KD)/Knockout (KO)
- Ubiquitin-Proteasome Pathway Analysis

OUR ADVANTAGES

- Multiple technology platforms to choose from for each project
- Customers can formulate suitable assay scheme through discussion with our experts
- High-throughput analysis and live cell analysis of degrader activity
- Highly reliable and reproducible results; and short turn-around time
- >2 decades of experience in Molecular Glues: our scientists first published the critical role of CRBN in IMiDs efficacy for lymphoma. (https://doi.org/10.1111/bjh.12172; https://doi.org/10.1111/bjh.12708)

ASSAYS OFFERED FOR SCREENING AND CHARACTERIZATION OF TPDS