

Reporter Gene

Dual-Luciferase Assay in Antirrhinum Petal Cells: Fujino et al. (2011). Temperature controls nuclear import of Tam3 transposase in Antirrhinum. *Plant Journal* 65, 146-155 [Read more](#)

Dual luciferase reporter assay (DLR®) in HEK cells: Fiesel et al. (2012). TDP-43 regulates global translational yield by splicing of exon junction complex component SKAR. *Nucleic Acids Research* 40 (6), 2668-2682 [Read more](#)

Second Messenger

HTRF® cAMP and IP1: Schmidt et al. (2011). Selective orthosteric free fatty acid receptor 2 (FFA2) agonists: identification of the structural and chemical requirements for selective activation of FFA2 versus FFA3. *The Journal of Biological Chemistry* 286, 10628-10640 [Read more](#)

cAMP with CFP/YFP FRET: Nikolaev et al. (2006). Molecular basis of partial agonism at the neurotransmitter alpha2A-adrenergic receptor and Gi-protein heterotrimer. *The Journal of Biological Chemistry* 281, 24506-24511 [Read more](#)

BRET and BRET²

Functional Ligand Binding Assay : Berchiche et al. (2011). Different Effects of the Different Natural CC Chemokine Receptor 2b Ligands on beta-Arrestin Recruitment, Gi Signaling, and Receptor Internalization. *Molecular Pharmacology* 79, 488-498 [Read More](#)

Functional Ligand Binding Assay to GPCRs: Kamal et al. (2009). Improved donor/acceptor BRET couples for monitoring β -arrestin recruitment to G protein-coupled receptors. *Biotechnology Journal, Methods and Advances* 4 (9), 1337-1344 [Read More](#)

Cytotoxicity

CellTiter-Glo, CellTiter-Blue, Cytotox-ONE and Apo-ONE: Gaunitz et al. (2003). HTS compatible assay for antioxidative agents using primary cultured hepatocytes. *ASSAY and Drug Development Technologies* 1 (3), 469-77 [Read more](#)

Superoxide assay with DHE: Patschan et al. (2008). Mapping mechanisms and charting the time course of premature cell senescence and apoptosis: lysosomal dysfunction and ganglioside accumulation in endothelial cells. *AJP Renal Physiology* 294 (1), 100-9 [Read more](#)

ATP determination

Luciferin-based ATP assay: Terhaz et al. (2010). Mislocalization of mitochondria and compromised renal function and oxidative stress resistance in Drosophila SesB mutants. *Physiological Genomics* 41, 33-41 [Read more](#)

Calcium monitoring

Intracellular Calcium assay with Fura-2: Kawasaki et al. (2010). Protein Kinase C-induced Phosphorylation of Orai1 Regulates the Intracellular Ca²⁺ Level via the Store-operated Ca²⁺ Channel. *The Journal of Biological Chemistry* 285, 25720-25730 [Read more](#)

AlphaScreen® / ADLOC

ADLOC Assay: Niebel et al. (2010). ADLOC: An Aptamer-Displacement Assay Based on Luminescent Oxygen Channeling. *Chemistry* 16 (36), 11100-11107 [Read more](#)

Caspase assay

Caspase assay with DEVD-amc: Eisele et al. (2011). APO010, a synthetic hexameric CD95 ligand, induces human glioma cell death in vitro and in vivo. *Neuro-Oncology* 13 (2), 155-164 [Read more](#)

Kinase assay

FRET protein kinase assay with EDANS/DABCYL: Gratz et al. (2010). A FRET-based microplate assay for human protein kinase CK2, a target in neoplastic disease. *Journal of Enzyme Inhibition and Medicinal Chemistry* 25 (2), 234-239 [Read more](#)

Cellular luminescence / Phagocytosis

Lucigenin-enhanced chemiluminescence assay of neutrophils: Mauch et al. (2007). Chronic Granulomatous Disease (CGD) and Complete Myeloperoxidase Deficiency Both Yield Strongly Reduced Dihydrorhodamine 123 Test Signals but Can Be Easily Discerned in Routine Testing for CGD. *Clinical Chemistry* 53 (5), 890-896 [Read more](#)

Immunoassays

Chemiluminescence Immunoassay: Bogan et al. (2007). Constitutive Steroidogenesis in Ovine Large Luteal Cells May Be Mediated by Tonically Active Protein Kinase A1. *Biology of Reproduction* 77 (2), 209-216 [Read more](#)

Chemiluminescence Immunoassay with Acridinium Ester: Adamczyk et al.(2006). Choline Concentration in Normal Blood Donor and Cardiac Troponin-Positive Plasma Samples. *Clinical Chemistry* 52 (11), 2123-2124 [Read more](#)

SNP determination

SNP assay: Okamoto et al. (2005). Simple SNP typing assay using a base-discriminating fluorescent probe. *Molecular BioSystems* 2, 122-127 [Read more](#)

Apoptosis

Calpain assay with AFC: Lee et al. (2007). Cadmium-induced ceramide formation triggers calpain-dependent apoptosis in cultured kidney proximal tubule cells. *AJP Cell Physiology* 293, 839–847 [Read More](#)

Enzyme kinetics

Proteasome activity assay with MCA: Hubert-Buron et al. (2006). Glutamine Pretreatment Reduces IL-8 Production in Human Intestinal Epithelial Cells by Limiting I κ B α Ubiquitination. *Journal of Nutrition* 136 (6), 1461-1465 [Read More](#)

Proteasome and Cathepsin B activity: Fujita et al. (2007). α -Synuclein Stimulates Differentiation of Osteosarcoma Cells: RELEVANCE TO DOWN-REGULATION OF PROTEASOME ACTIVITY. *The Journal of Biological Chemistry*, 282, 5736-5748 [Read more](#)

Cell density/ Cell proliferation

Cell density assay with crystal violet: Nantia et al. (2012). Effects of the Methanol Extract of Basella alba L (Basellaceae) on Steroid Production in Leydig Cells. *Andrologia*44 (1), 38–45 [Read More](#)

Nucleic acid quantification

DNA quantification: Little et al. (2004)

Poly- amino ester-containing microparticles enhance the activity of nonviral genetic vaccines. *PNAS* 101 (26), 9534–9539 [Read More](#)

Binding Assay

Peptide binding with Fluorescence Polarisation: Burgevin et al. (2008) A Detailed Analysis of the Murine TAP Transporter Substrate Specificity. *PLoS ONE* 3, 6 [Read more](#)

Further Applications

Chemotaxis - ChromaGlo™ assays - Cytokine analysis - DNA probe assays - Ion channel studies - GPCRs / 7TM receptors - Membrane potential - Proteases - Protein concentration - Protein-protein interactions