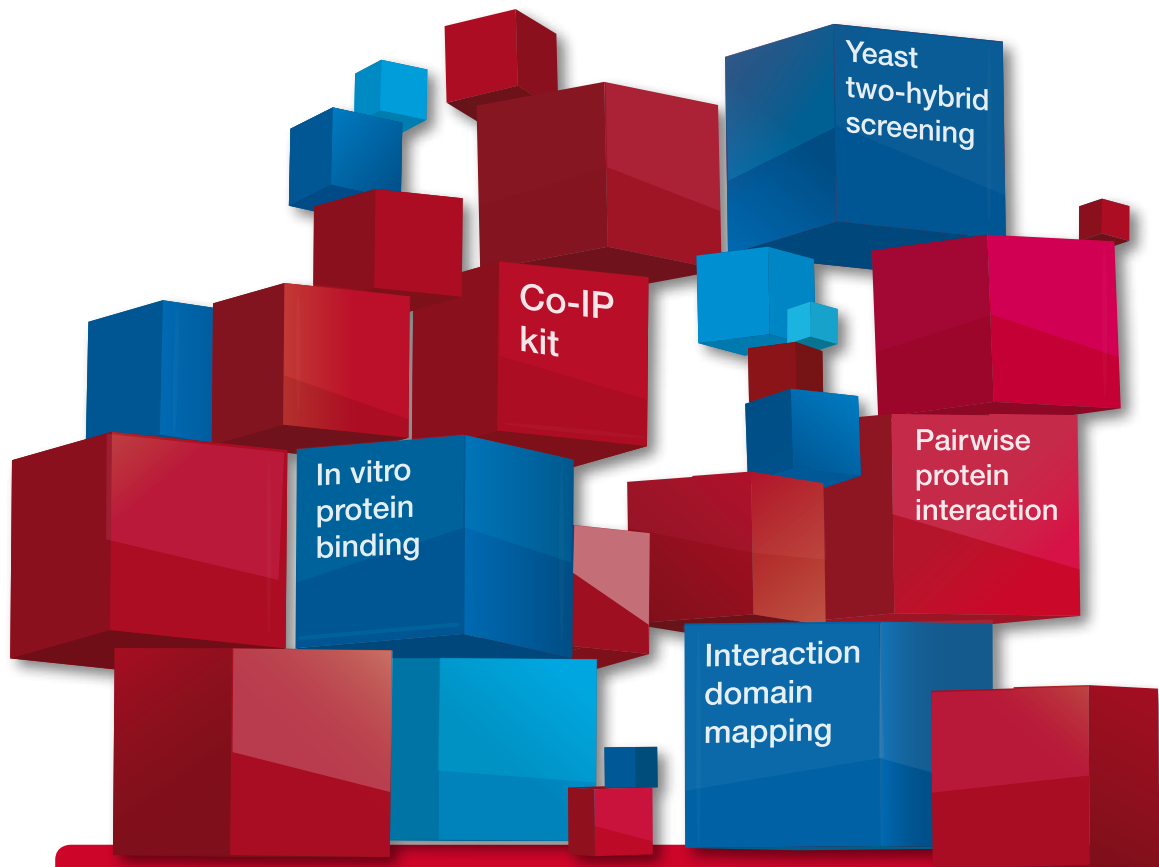


Protein Interaction Kits

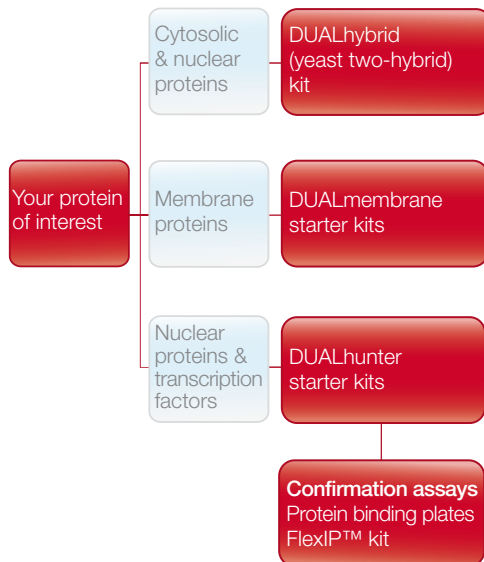


We offer you

- A solution for all protein classes!
- High quality swiss made products
- All-in-one packages for a sensational price !

Protein Interaction Kits

- Find novel interacting partners for your protein of interest



Applications

- Discover novel interaction partners of your protein of interest
- Map protein interaction surfaces
- Screen cytosolic proteins, nuclear proteins or integral membrane proteins
- All technologies are available as custom services and as kits

Benefits

- Screening technologies for all protein classes
- Protein interactions are detected *in situ* inside intact cells
- Normalized cDNA libraries ensure that even rare interactors are identified
- No need for protein extraction or purification
- Simple transfer of interactors to downstream validation assays

- DUALhybrid kit for cytosolic and nuclear proteins

Applications

- Discovery of novel protein interactions by yeast two-hybrid screening of cDNA libraries
- Analysis of direct protein interactions
- Domain mapping studies

Benefits

- Triple reporter strain ensures stringent screens and low false positive rates
- N- and C-terminal bait vectors for optimal bait construction

Technology

DUALhybrid technology enables you to screen a protein of interest for interactors expressed from a cDNA library of your choice. Two different bait vectors give you the option to express your protein of interest either as N- or C-terminal fusion to the LexA domain. The choice of two orientations enhances your chances of finding all interactors for your protein and reduces the chances of self-activation.

The triple reporter strain NMY51 allows high stringency selection and greatly lowers the rate of false positives in a screen.

Kit contents

Content	Size
pLexA-N bait vector	5 µg
pLexA-C bait vector	5 µg
pGAD-HA prey vector	5 µg
pY3H bridge vector	5 µg
pLexA-p53 control bait vector	5 µg
pLexA-laminC control bait vector	5 µg
pACT-large T control prey vector	5 µg
NMY51 yeast reporter strain	stab culture

Ordering information

Order number	Product	Size
P01004	DUALhybrid kit	1 kit

Please find a complete list of cDNA libraries on our website: www.dualsystems.com

Selected list of successfully performed DUALhybrid screens

Buxbaum *et al.* **Mol. Psychiatry** Apr 17 (2007)
 Burklen *et al.* **Mol. Cell. Biochem.** 297:53-64 (2007)
 Ahnesorg *et al.* **Cell** 124:301-313 (2006)
 Nagy *et al.* **Hearing Research** 204:216-222 (2005)
 Hipp *et al.* **J. Biol. Chem.** 279:16503-16510 (2004)



■ DUALmembrane starter kits for all classes of membrane proteins

Applications

- Discovery of novel protein interactions by DUALmembrane screening of cDNA libraries
- Compatible with full-length integral membrane proteins and membrane-associated proteins
- Analysis of direct protein interactions
- Domain mapping studies

Benefits

- Identifies interactions involving integral membrane proteins directly at the cellular membrane
- Screening of full-length membrane proteins

Technology

DUALmembrane technology enables you to screen a membrane protein of interest for interactors expressed from a cDNA library of your choice. Full-length proteins can be used and the interaction takes place at the cellular membrane.

Depending on the topology of your membrane protein, we offer three different starter kits:

- DUALmembrane starter kits N for for all type II transmembrane proteins
- DUALmembrane starter kits SUC for type I transmembrane proteins.
- DUALmembrane starter kits STE for type I and type II transmembrane proteins.

Kit contents

Content	Size
DUALmembrane starter kits N: pBT3-N bait vector	5 µg
DUALmembrane starter kits SUC: pBT3-SUC bait vector	
DUALmembrane starter kits STE: pBT3-STE bait vector	
pPR3-N prey vector	5 µg
pOST1-Nubl control prey vector	5 µg
pTSU2-APP control bait vector	5 µg
pNubG-Fe65 control prey vector	5 µg
NMY51 yeast reporter strain	stab culture
HTX beta-galactosidase assay kit	1 kit
DS Yeast transformation kit	1 kit
cDNA library of your choice	60 µg

We offer a huge variety of cDNA libraries such as human tissue, human cell lines, plant, rat cells, mouse tissue and model organisms. Many of our libraries are normalized!

Please find a complete list of libraries for our DUALmembrane starter kits on our website: www.dualsystems.com

Ordering information

Order number	Product	Size
P01201 — P01232	DUALmembrane starter kits N	1 kit
P01301 — P01332	DUALmembrane starter kits SUC	1 kit
P01401 — P01432	DUALmembrane starter kits STE	1 kit

■ DUALhunter starter kits for nuclear proteins and transcription factors

Applications

- Discovery of novel protein interactions by screening of cDNA libraries
- Compatible with nuclear proteins, transcription factors, acidic proteins and self-activating proteins
- Analysis of direct protein interactions
- Domain mapping studies

Benefits

- Alternative for screening proteins which are self-activating in classical yeast two-hybrid systems
- Screening of acidic proteins and transcription factors

Technology

DUALhunter technology enables you to screen proteins which are unsuitable for use in classical two-hybrid systems, such as transcription factors, nuclear proteins or acidic proteins. The bait protein is attached to the membrane via a small transmembrane domain and is screened outside of the nucleus for interaction with other proteins.

Kit contents

Content	Size
pDHB1 bait vector	5 µg
pPR3-N prey vector	5 µg
pOST1-Nubl control prey vector	5 µg
pDSL-p53 control prey vector	5 µg
pDHB1-Large T control bait vector	5 µg
NMY51 yeast reporter strain	stab culture
HTX beta-galactosidase assay kit	1 kit
DS Yeast transformation kit	1 kit
cDNA library of your choice	60 µg

We offer a huge variety of cDNA libraries such as human tissue, human cell lines, plant, rat cells, mouse tissue and model organisms. Many of our libraries are normalized!

Please find a complete list of libraries for our DUALhunter starter kits on our website: www.dualsystems.com

Ordering information

Order number	Product	Size
P01601 — P01632	DUALhunter starter kits	1 kit

Confirmation assays: *In vitro* binding assays

Multiwell protein binding plates

Applications

- Simple method to detect protein-protein, protein-DNA and protein-RNA interactions in a 96-well format

Benefits

- Any type of protein can be used
- Generate binding curves and determine the K_d
- Easy detection by fluorescence or light absorption

Technology

96-well protein-binding plates can be used to study specific protein-protein, protein-DNA or protein-RNA interactions. The anionic protein-binding plates bind negatively charged proteins. The cationic protein-binding plates bind positively charged proteins. Since the bound-proteins often maintain their native conformation and their catalytic or binding activities, the bound protein can be recognized by a second molecule that specifically

interacts with the bound protein where the native conformation is required. The second molecule can be detected by biochemical or biophysical methods. Black plates provide a minimum noise level for fluorescence detection. Transparent plates allow detection of the bound molecules based on light absorbance.

The binding reactions in the 96-well plate format may be used for ELISA and studies of protein-protein, protein-peptide, protein-DNA or protein-RNA interactions.

Ordering information

Order number	Product	Size
P05101	96-well anionic protein-binding plate (black)	1 plate
P05102	96-well anionic protein-binding plate (transparent)	1 plate
P05103	96-well cationic protein-binding plate (black)	1 plate
P05104	96-well cationic protein-binding plate (transparent)	1 plate

Confirmation assays: Immunoprecipitation assays

FleX-IP immunoprecipitation kit

Applications

- Immunoprecipitation of proteins from cells and cell-free reactions
- Co-immunoprecipitation experiments to validate protein interactions
- Ideal for follow-up studies after DUALhybrid (yeast two-hybrid), DUALmembrane and DUALhunter screens

Benefits

- Complete solution for easy immunoprecipitation experiments
- Optimized lysis and wash buffers
- Spin columns for easy handling and improved recovery of immune complexes
- Compatible with mouse, rat, rabbit, goat and human antibodies
- Sufficient for 40 IP reactions

Technology

The FleX-IP immunoprecipitation kit enables highly efficient antigen immunoprecipitations using less than 10 μ g of antibody. The specific antibody is first added to the sample to form an immune complex, which is then added to the Protein A/G agarose. The complex is

washed to remove unbound material, and the bound immune complex is eluted for downstream applications like Western blotting. The FleX-IP kit is optimally suited to confirm protein-protein interactions found in DUALhybrid (yeast two-hybrid), DUALmembrane and DUALhunter screens by co-immunoprecipitation.

Kit contents

Contents	Size
Protein A/G agarose	800 μ l (200 μ l resin)
Control mouse IgG	20 μ l (1 mg/ml)
Lysis/Wash buffer	50 ml
NaCl stock solution (5M)	1 ml
SDS-PAGE buffer	2 x 1 ml
Spin columns	40 columns
Collection tubes	40 tubes

Ordering information

Order number	Product	Size
P01015	FleX-IP immunoprecipitation kit	1 kit

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