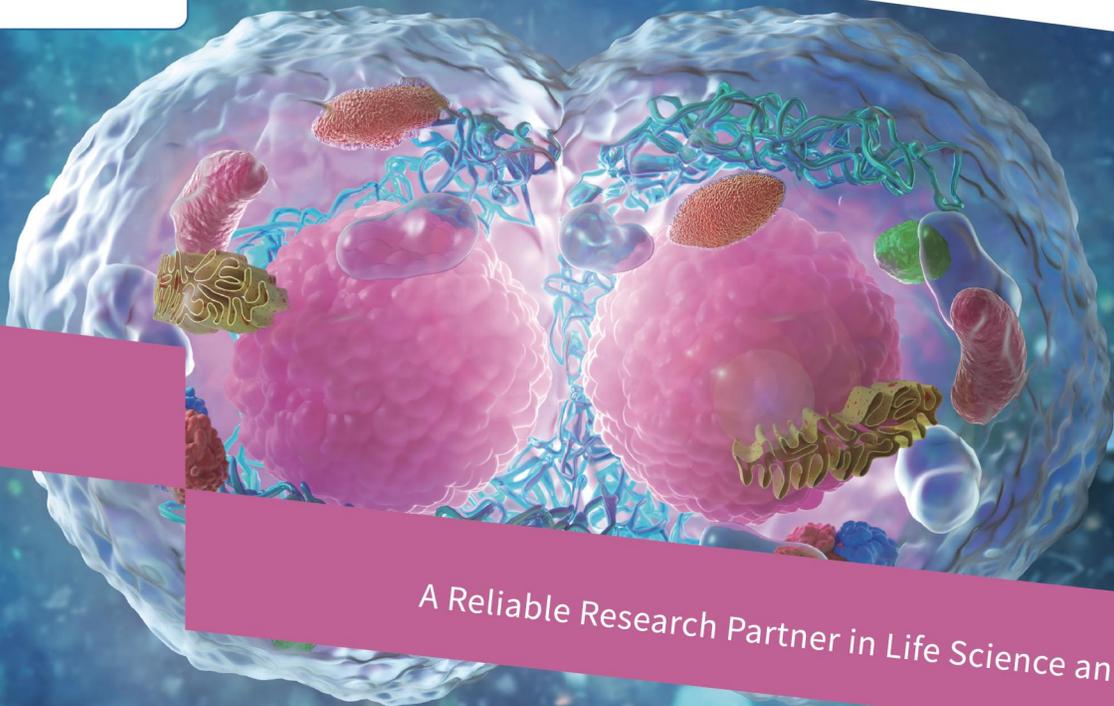
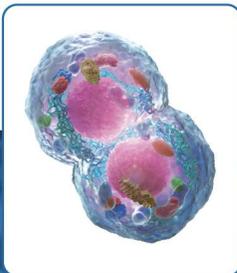


# Apoptosis and Cell Health Detection Kits

- ⇒ Cell Apoptosis Assay Kits
- ⇒ Cell Proliferation and Cell Cycle Kits
- ⇒ Cell Viability/Toxicity Assay Kits



*A Reliable Research Partner in Life Science and Medicine*

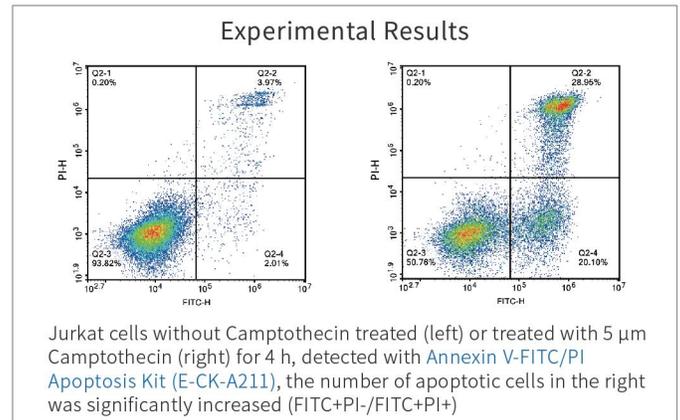
## Cell Apoptosis

### Annexin V

Annexin V, combined with nuclear dyes, can effectively distinguish early and late apoptosis.

### Features of Elabscience® Annexin V Apoptosis Detection Kits

-  **Multiple Options**  
15 fluorochromes and 3 nuclear dyes (PI, 7-AAD, DAPI)
-  **Simple & Fast**  
Staining can be completed in 15-20 minutes
-  **Superior Performance**  
Handles cell overload with clear separation even at 2 million cells
-  **High Cost-Effectiveness**  
100 assays can be used for 200 tests



### Elabscience® Top-Selling Annexin V Apoptosis Detection Kits

Product Name	Cat. No.
Annexin V-FITC/PI Apoptosis Kit	E-CK-A211
Annexin V-FITC/7-AAD Apoptosis Kit	E-CK-A212
Annexin V-PE/7-AAD Apoptosis Kit	E-CK-A216
Annexin V-APC/PI Apoptosis Kit	E-CK-A217

Product Name	Cat. No.
Annexin V-APC/7-AAD Apoptosis Kit	E-CK-A218
Annexin V-FITC/DAPI Apoptosis Kit	E-CK-A252
Annexin V-PE/DAPI Apoptosis Kit	E-CK-A256
Annexin V-APC/DAPI Apoptosis Kit	E-CK-A258

For more Annexin V kits, please visit [www.elabscience.com](http://www.elabscience.com) or contact local distributors.

### Featured Citations of Elabscience® Annexin V Kit (Partial)

Product Name	Title	Journal
Annexin V-FITC/PI Apoptosis Kit	MARCKSL1-2 reverses docetaxel-resistance of lung adenocarcinoma cells by recruiting SUZ12 to suppress HDAC1 and elevate miR-200b	<i>Molecular Cancer</i>
Annexin V-FITC/PI Apoptosis Kit	Promising therapeutic efficacy and safety of a novel integrin $\alpha$ 6-targeting peptide-drug conjugate in lung adenocarcinoma	<i>Molecular Cancer</i>
Annexin V-Elab Fluor® 647/DAPI Apoptosis Kit	Cell-in-Cell-Mediated entosis reveals a progressive mechanism in pancreatic cancer	<i>Gastroenterology</i>
Annexin V-APC/PI Apoptosis Kit	Cell membrane-camouflaged bufalin targets NOD2 and overcomes multidrug resistance in pancreatic cancer	<i>Drug Resistance Updates</i>

For more citation information, please visit [www.elabscience.com](http://www.elabscience.com)

## TUNEL

The gold standard for apoptosis detection, widely used for late-stage apoptosis.

### Features of Elabscience® TUNEL Apoptosis Kits

#### Multiple Options

Choose the most suitable kit based on sample type and instrument

#### Convenient

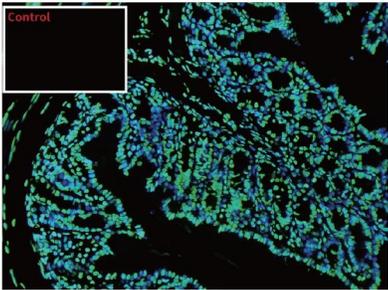
Complete components, no need for additional reagents

#### Safe & Non-Toxic

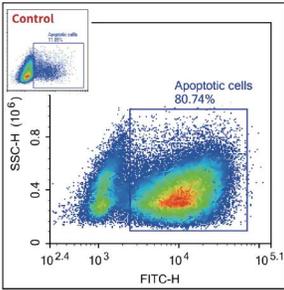
No arsenic compounds, safe for humans and the environment

#### Specialized

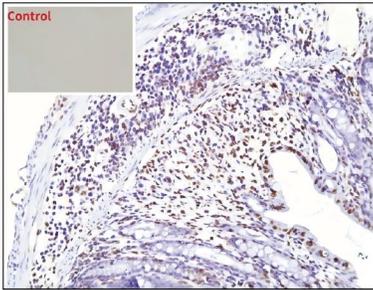
Specialized reagents for in situ/flow cytometry detection



Mouse colon tissue, treated with DNase I for 10 min (Control: without DNase I treated), detected with One-step TUNEL In Situ Apoptosis Kit (Green, FITC) (E-CK-A320)



HL-60 cells, treated with 2.5 μM camptothecin for 4 h (Control: without camptothecin treated), detected with One-step TUNEL Flow Cytometry Apoptosis Kit (Green, Elab Fluor® 488) (E-CK-A421)



Mouse colon tissue, treated with DNase I for 10 min (Control: without DNase I treated), detected with TUNEL In Situ Apoptosis Kit (HRP-DAB Method) (E-CK-A331)

### Elabscience® TUNEL Apoptosis Kits

Product Name	Cat. No.
TUNEL In Situ Apoptosis Kit (Green, FITC)	E-CK-A320
TUNEL In Situ Apoptosis Kit (Green, Elab Fluor®488)	E-CK-A321
TUNEL In Situ Apoptosis Kit (Red, Elab Fluor®594)	E-CK-A322
TUNEL In Situ Apoptosis Kit (Red, Elab Fluor®647)	E-CK-A324
TUNEL In Situ Apoptosis Kit (Red, Elab Fluor®555)	E-CK-A325
TUNEL In Situ Apoptosis Kit (HRP-DAB Method)	E-CK-A331

Product Name	Cat. No.
TUNEL Flow Cytometry Apoptosis Kit (Green, FITC)	E-CK-A420
TUNEL Flow Cytometry Apoptosis Kit (Green, Elab Fluor®488)	E-CK-A421
TUNEL Flow Cytometry Apoptosis Kit (Red, Elab Fluor®594)	E-CK-A422
TUNEL Flow Cytometry Apoptosis Kit (Blue, Elab Fluor® Violet 450)	E-CK-A423
TUNEL Flow Cytometry Apoptosis Kit (Red, Elab Fluor®647)	E-CK-A424
TUNEL Flow Cytometry Apoptosis Kit (Red, Elab Fluor®555)	E-CK-A425

### Featured Citations of Elabscience® TUNEL Apoptosis Kits (Partial)

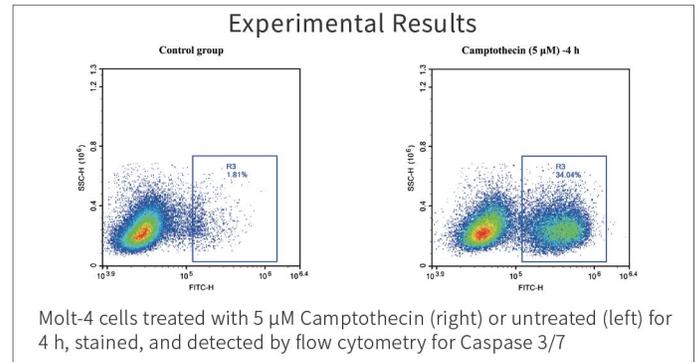
Product Name	Title	Journal
One-step TUNEL In Situ Apoptosis Kit (Green, Elab Fluor® 488)	Prolonged sleep deprivation induces a cytokine-storm-like syndrome in mammals	<i>Cell</i>
One-step TUNEL In Situ Apoptosis Kit (Green, FITC)	Circular RNA ACVR2A promotes the progression of hepatocellular carcinoma through mir-511-5p targeting PI3K-Akt signaling pathway	<i>Molecular Cancer</i>
One-step TUNEL In Situ Apoptosis Kit (Green, FITC)	Stem cell microencapsulation maintains stemness in inflammatory microenvironment	<i>International Journal of Oral Science</i>
One-step TUNEL In Situ Apoptosis Kit (Red, Elab Fluor® 555)	Activation of regulatory dendritic cells by MERTK coincides with a temporal wave of apoptosis in neonatal lungs	<i>Science Immunology</i>

## Caspase

Elabscience® self-developed Caspase Assay Kits are specific, sensitive, and easy to use, meeting various experimental needs.

### Features of Elabscience® Caspase Assay Kits

-  **Multiple Options**  
Fluorochrome and spectrophotometric detection kits
-  **Comprehensive Indicators**  
8 different Caspase indicators for various experimental needs
-  **Safe & Non-Toxic**  
Low cytotoxicity and does not interfere with apoptosis



### Elabscience® Caspase Assay Kits

Colorimetric Method	
Product Name	Cat. No.
Caspase 1 Activity Assay Kit	E-CK-A381
Caspase 2 Activity Assay Kit	E-CK-A382
Caspase 3/7 Activity Assay Kit	E-CK-A383
Caspase 4 Activity Assay Kit	E-CK-A384
Caspase 6 Activity Assay Kit	E-CK-A386
Caspase 8 Activity Assay Kit	E-CK-A388
Caspase 9 Activity Assay Kit	E-CK-A389

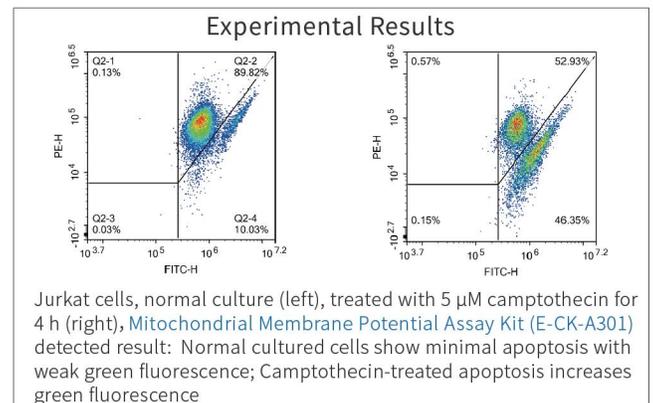
Fluorescence Method	
Product Name	Cat. No.
Caspase 1 Activity Detection Substrate for Flow Cytometry	E-CK-A481
Caspase 3/7 Activity Detection Substrate for Flow Cytometry	E-CK-A483
Caspase 4 Activity Detection Substrate for Flow Cytometry	E-CK-A484
Caspase 6 Activity Detection Substrate for Flow Cytometry	E-CK-A486
Caspase 8 Activity Detection Substrate for Flow Cytometry	E-CK-A488
Caspase 3/7 and Annexin V Double Staining Apoptosis Kit	E-CK-A831
Caspase 3/7 and PI Double Staining Kit	E-CK-A832

## Mitochondrial Detection

Mitochondrial membrane potential decline is an early apoptotic event, leading to cytochrome C release and caspase activation.

### Features of Elabscience® Mitochondrial Assay Kits

-  **Multiple Options**  
Multiple fluorochromes for different samples
-  **Simple Operation**  
Simplified steps, shorter experimental time
-  **Convenient Use**  
Complete components, no additional reagents needed



Product Name	Cat. No.
Mitochondrial Membrane Potential Assay Kit (with JC-1)	E-CK-A301
MitoBright Red Probe Assay Kit	E-CK-A402
MitoBright Deep Red Probe Assay Kit	E-CK-A403

## Cell Proliferation and Cell Cycle Kits

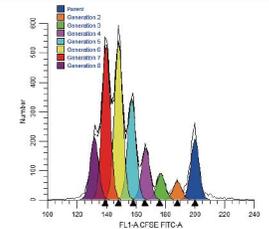
### CFSE

#### Features of Elabscience® CFSE Kit

-  **Stable Signal**  
Fluorochrome remains in cells for weeks
-  **Safe & Non-Toxic**  
Minimal cytotoxicity
-  **Simple Operation**  
Staining takes 0.5-1 h

#### Experimental Result

Mouse spleen cells co-cultured with mature DC cells, CFSE Cell Division Tracker Kit(E-CK-A345) staining result



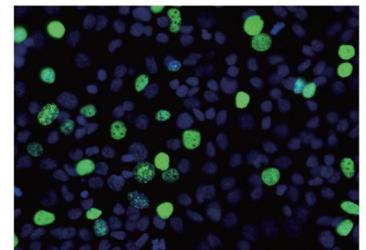
### EdU

#### Features of Elabscience® EdU Kits

-  **Multiple Options**  
Four fluorochromes for different samples
-  **Simple Operation**  
Simplified steps, shorter experimental time
-  **Wide Applicability**  
Suitable for various cell types and experimental scenarios
-  **High Sensitivity**  
More sensitive than traditional BrdU methods

#### Experimental Result

Hela cells were treated with 10  $\mu$ M EdU for 2 h, and detected with E-Click EdU Cell Proliferation Imaging Assay Kit (Green, Elab Fluor® 488) (E-CK-A376), blue (nucleus) green (proliferating cells)



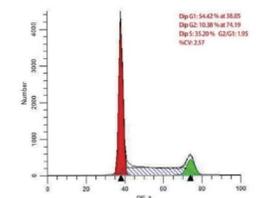
### Cell Cycle

#### Features of Elabscience® Cell Cycle Assay Kits

-  **Multiple Options**  
Three fluorochromes, resistant to autofluorescence
-  **Wide Applicability**  
Suitable for various cell samples
-  **High Accuracy**  
Precise identification of different cell cycle phases

#### Experimental Result

Hela cells treated with 1  $\mu$ g/mL Paclitaxel for 6 h, fixed overnight at -20°C, detected with Cell Cycle Assay Kit (Red Fluorescence) (E-CK-A351), red (G1 phase), green (G2 phase)



#### Elabscience® Cell Proliferation and Cell Cycle Assay Kits

Product Name	Cat. No.
CFSE Cell Division Tracker Kit	E-CK-A345
EdU Flow Cytometry (Green, FITC)	E-CK-A370
EdU Flow Cytometry (Green, Elab Fluor® 488)	E-CK-A371
EdU Flow Cytometry (Red, Elab Fluor® 647)	E-CK-A373
EdU Imaging (Green, FITC)	E-CK-A375
EdU Imaging (Green, Elab Fluor® 488)	E-CK-A376

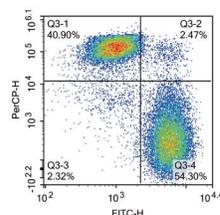
Product Name	Cat. No.
EdU Imaging (Red, Elab Fluor® 594)	E-CK-A377
EdU Imaging (Red, Elab Fluor® 647)	E-CK-A378
Cell Cycle Assay Kit (Red Fluorescence)	E-CK-A351
Cell Cycle Assay Kit (Green Fluorescence)	E-CK-A352
Cell Cycle Assay Kit (Blue Fluorescence)	E-CK-A353

## Cell Viability/Toxicity Assay Kits

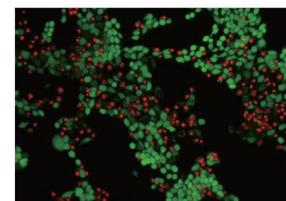
### Calcein-AM/PI

Calcein AM easily penetrates live cell membranes, hydrolyzed by intracellular esterases to generate Calcein (Ex/Em=490/515 nm), used with PI to distinguish live/dead cells.

#### Experimental Results



Jurkat cells stored at 4°C for 20 days, stained with Calcein AM/PI Double Staining Kit (E-CK-A354), detected by flow cytometry

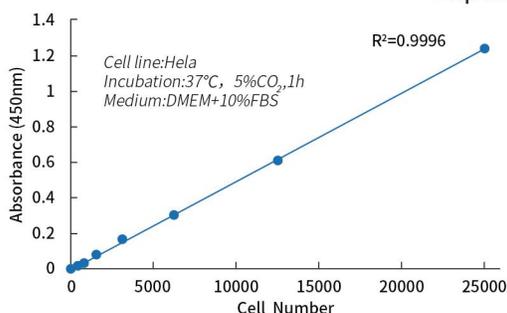


4T1 cells treated with 5 μM Camptothecin for 4 h, stained with Calcein AM/PI Double Staining Kit (E-CK-A354), microscopy result (green: live cells, red: dead cells)

### CCK-8

CCK-8, based on WST-8 reduction to water-soluble orange Formazan, is widely used for rapid, high-sensitivity cell viability and toxicity detection.

#### Experimental Result



Detection result of HeLa cells at different concentrations incubated with CCK-8 for 1 h

- ⊙ HeLa cell suspension: 100 μL/well
- ⊙ CCK-8 solution: 10 μL/well
- ⊙ Incubation: 1 h
- ⊙ Detection: absorbance (450 nm)

## Elabscience® Cell Viability/Toxicity Assay Kits

Product Name	Cat. No.
Calcein AM/PI Double Staining Kit	E-CK-A354
Enhanced Cell Counting Kit 8 (WST-8/CCK8)	E-CK-A362
MTT Cell Proliferation and Cytotoxicity Assay Kit	E-CK-A341

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