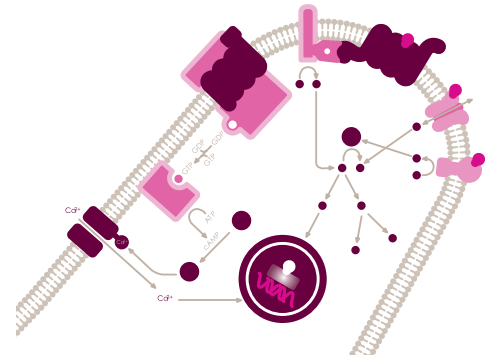


溝通橋樑 ~ Signaling transduction

細胞是生命個體組成的最小計算單位，個別細胞的生死也影響著整個生命個體的發育、生長、分化、老化及死亡。正常的細胞不論其來源為何，皆受到嚴密的生死調控，一旦此調控機制失去功能，造成不正常的細胞生長或死亡，便會引起生物體的病變。每種細胞依其來源和功能的不同而表現出不同受體 (receptor)，和細胞外不同因子 (ligand) 結合，會引發一連串的訊號傳遞 (Signaling transduction)，最終引發或抑制某些基因的表達，進而影響細胞的功能，如生長、分化或死亡。

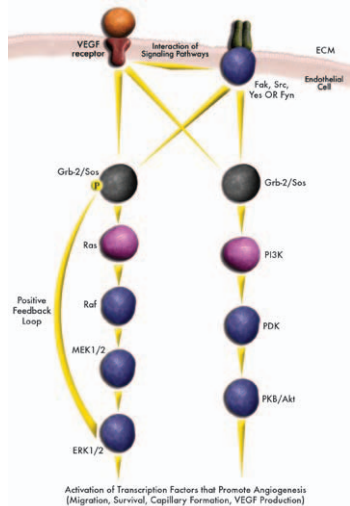
訊號傳遞主要分為三個部分：1. 神經訊號 2. 次級訊號傳遞因子 (Secondary Messengers) 3. 磷酸化蛋白的調控。Millipore 提供您一系列的訊號相關產品，包含抗體及刺激物及試劑。



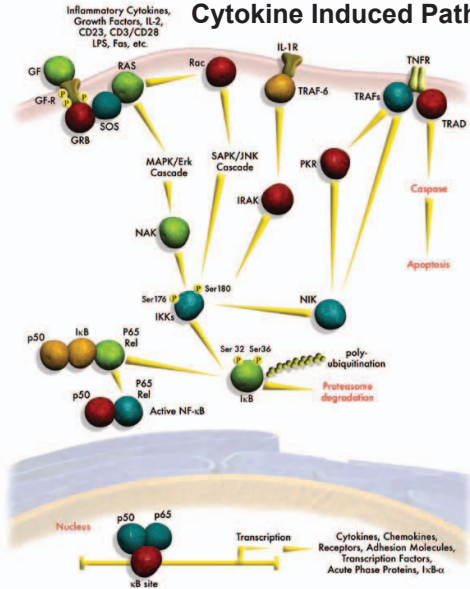
神經訊號

依化學特性可分脂溶性及水溶性兩種；脂溶性化學訊號主要是一些固醇類的賀爾蒙，受器位於細胞內，主要影響基因表現及蛋白質製造；而水溶性化學訊號的受器主要分佈在細胞膜，以二級訊號作媒介，影響細胞內代謝、肌肉收縮、分泌、細胞增生。

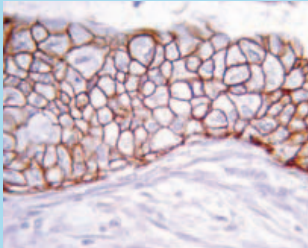
VEGF-Integhn Binding Pathway



Cytokine Induced Pathway

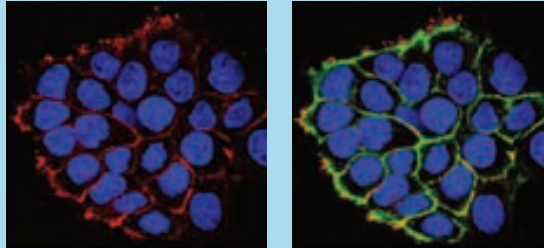


EGF Cat No. 07-1432



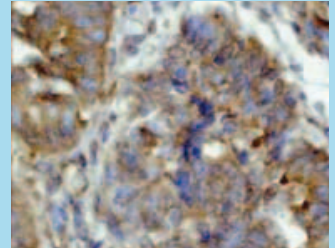
EGF staining on colon cancer tissue via anti-EGF(07-1432) and the Millipore IHC Select® HRP-DAB detection system.

EGFR Cat No. 05-1047



EGFR (red) expression in A431 cells is demonstrated using a Cy-3 conjugated primary antibody (05-1047) via confocal immunocytochemistry. Nuclear staining (blue) and actin staining (green) was achieved through use of DAPI and Alexa Fluor 488 conjugated phalloidin, respectively.

SMAD-2 Cat No. 04-1029



IGF expression pattern and morphology on ductal breast carcinoma revealed using anti-IGF (07-1411) and Millipore IHC Select detection with HRP-DAB.

訂購資訊

Cat No.	Item Description	Size	Cat No.	Item Description	Size
07-1432	Anti-EGF	100 ul	06-255	Anti-JAK2	150 μL
05-1047	Anti-EGFR (cytoplasmic domain)	100 μg	GF003	FGF-2 (bFGF), recombinant human	50 μg
05-118	Anti-FGF2 BFGF, Clone BFM2	500 μg	GF144	EGF, recombinant human	500 μg
05-172	Anti-IGF-1, Clone SM1.2	200 μg	GF138	IGF-1, recombinant human	100 μg
07-2112	Anti-FGFR-4	100 μg	GF094	VEGF, recombinant human	10 μg
07-1411	Anti-IGF-1	100 μg	14-467	PDGFRa, active	50 μg
06-847	Anti-EGFR, polyclonal	200 μg	GF023	Tumor Necrosis Factor-α, recombinant human	50 μg
04-1029	Anti-SMAD2	100 μL	IL004	Interleukin 4 (IL-4), recombinant human	10 μg
04-1114	Anti-TNF	100 μL	IL006	Interleukin 6 (IL-6), recombinant human	20 μg

次級訊號傳遞因子 (Secondary Messengers)

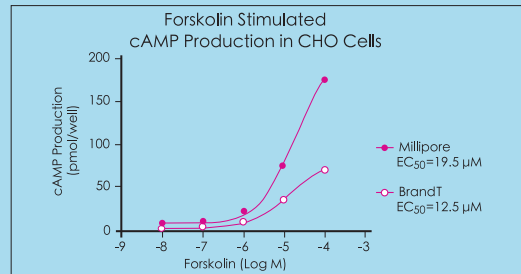
次級訊號傳遞因子可以是受到酵素活化快速合成的小分子也可以是藉由細胞膜通道所引發的離子。大部分的次級訊號是由細胞表面受體接受細胞外來的訊號後，轉換而來的細胞內訊號稱為次級訊號 (Secondary Messengers)。而細胞外的訊號則稱為初級影響物 (Primary effectors)。次級訊號傳遞因子為初級影響物作用於標的細胞後在細胞內所產生的訊號分子。次級訊號傳遞因子依其細胞膜之立體結構可分為三類：離子通道型 (Ion channels)，G 蛋白質鍵結型 (G protein-coupled receptor)，催化酵素型 (catalytic receptor)。次級訊號產生後會激活一連串的酵素連鎖反應，引發細胞反應 (responses)，包括肌肉收縮、運輸、代謝作用等。

cAMP HTS Immunoassay kit Cat No. 17-518

靈敏度高	安全：可見光方式偵測
操作簡單	定量：含標準品，方便定量
All in one：包含實驗所需物質	

Assay Overview

Add samples, tracer and anti-cAMP antibody → Incubate 30 min → Wash, add detection reagent → Incubate 30 min → Luminesc. → cAMP (pmol) → Read results



The Millipore cAMP HTS immunoassay demonstrated superior results versus a non-Millipore (Brand T) cAMP detection system in CHO cells pretreated with isobutylmethylxanthine phosphodiesterase inhibitor and forskolin.

訂購資訊

Cat No.	Item Description	Size	Cat No.	Item Description	Size
07-1490	Anti-Calcineurin	100 μL	05-1087	Anti-phospho-IRS1 (Ser307)	100 μg
05-389	Anti-RAC1, clone 23A8	250 μg	16-258	Anti-IRS1, Alexa Fluor 555 conjugate	50 μg
17-518	cAMP HTS Immunoassay Kit (Chemiluminescent)	960 assays	05-1085	Anti-IRS1	100 μg
17-498	cAMP HTS Immunoassay Kit (Colorimetric)	192 assays	48-660	MILLIPLEX map 10-Plex MAPK/SAPK Signaling Kit	100 assays
17-598	cAMP HTS Immunoassay Kit (Colorimetric)	960 assays	48-680	MILLIPLEX map 8-Plex Multi-Pathway Signaling Kit	100 assays
05-465	Anti-GRK 2/3 (bARK 1/2)	100 μg	46-632	MILLIPLEX map Total CREB MAPmate	kit
AB5674P	Anti-Acid Sensitive Ion Channel 1	50 μg	46-609	MILLIPLEX map Total Erk/MAP Kinase 1/2 MAPmate	kit
AB5156	Anti-Calcium Channel, Voltage Gated a 1C	200 μL	46-628	MILLIPLEX map Total IRS1 MAPmate	kit
16-257	Anti-IRS1, Alexa Fluor 488 conjugated	50 μg	17-463	Erk 1/2 STAR ELISA Kit	96 assays
09-407	Anti-phospho-TIE2/TEK (Tyr992)		17-479	STAR FAK ELISA Kit	96 assays
06-182	Anti-MAPK 1/2	100 μg	17-442	"Erk 1/2 (Thr202/Tyr204)/(Thr185/Tyr187) Dual Detect CELISA Assay Kit (Fluorogenic Detection)"	kit
05-1049	Anti-Met (extracellular), clone 4F8.2	100 μg	14-571	TrkA, active	10 μg
07-787	Anti-phospho-c-Abl(Tyr 245)	100 μL	14-326	Src, active	10 μg

磷酸化蛋白的調控

磷酸化蛋白質調控細胞訊息的傳遞、細胞的成長、分化及代謝等生理機制。

4G10 Cat No. 05-1050

4G10 Platinum Western Blot Comparison

Lane 1: 4G10 Lane 2: PY20 Lane 3: 4G10 Platinum

FOXO1 Cat No. 05-1075

Confocal fluorescent analysis of A431 and HeLa cells using anti-FOXO1 (05-1075)(red), Actin (green) and nucleus (blue).

Ras Cat No. 05-1071

Immunohistochemistry staining of stratified human squamous epithelium using anti-Ras (05-1071) and the Millipore IHC Select Detection System.

訂購資訊

Cat No.	Item Description	Size	Cat No.	Item Description	Size
05-1050	4G10 Platinum, Anti-Phosphotyrosine	100 μL	17-497	Ras Activation ELISA Assay Kit	Kit
14-840	AMPK (α1, β1, γ1), active	10 μg	17-441	Rac1/Cdc42 Activation Assay Kit	30 assays
05-1100	Anti-Sulfotyrosine, clone Sulfo-1C-A2	100 μL	09-482	Anti-PI3 Kinase, p110b	100 μL
09-463	Anti-DEPTOR	100 μg	05-1545	Anti-Inositol Hexakisphosphate Kinase 2	05-1406
09-260	Anti-mouse Tks4	100 μg	05-1406	Anti-Phospholipase A2	100 μg
05-1307	Anti-Ubiquitin, Lys48-Specific, clone Apu2	100 μL	05-515	Anti-Acetyl-Lysine	100 μg
05-1000	Anti-phosphoserine, clone 4A4	100 μg	07-414	Anti-dimethyl-Arginine, asymmetric (ASYM24)	200 μl
MAB374	Anti-Glyceraldehyde-3 PDH	200 μg	05-740	Anti-phospho-ATM (Ser1981)	200 μg
MAB1510	Anti-Ubiquitin	100 μL	06-297	Anti-CBP NT	200 μg
06-284	Anti-Nitrotyrosine	100 μg	09-070	Anti-ATR	100 μg
05-1308	Anti-Ubiquitin, Lys63 specific	100 μL	05-1075	Anti-FOXO1	200 μg
14-770	mTOR (1362-end), active	10 μg	05-511	Anti-TCF-4, clone 6H5-3	200 μg
MAB5414	Anti-NOTCH1	100 μL	05-512	Anti-TCF-3/4, clone 6F12-3	200 μg
05-1071	Anti-Ras Assays & Kits	100 μg	05-510	Anti-TCF-1, CL 7H3 PC 12-303	100 μg