



碧云天生物技术/Beyotime Biotechnology
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Recombinant Active Human COX1 (His & Twin-Strep-Tag)

产品编号	产品名称	包装
P2530-1KU	Recombinant Active Human COX1 (His & Twin-Strep-Tag)	1KU
P2530-5KU	Recombinant Active Human COX1 (His & Twin-Strep-Tag)	5KU
P2530-20KU	Recombinant Active Human COX1 (His & Twin-Strep-Tag)	20KU

产品简介:

Species	Gene ID	Accession	Source	Length	MW	Tag
Human	5742	P23219	HEK293	620aa	~70kDa	C- His & Twin-Strep Tag

蛋白信息(About this protein)	
名称(Name)	Recombinant Active Human COX1 (His & Twin-Strep-Tag), 重组活性人源COX1 (His & Twin-Strep标签)
别名(Synonyms)	Cyclooxygenase-1; Prostaglandin-endoperoxide synthase 1; Prostaglandin G/H Synthase 1; Prostaglandin H2 Synthase 1; COX-1; PGH synthase 1; PGHS1; PGHS-1; PTGHS; PHS 1
产品简介 (Background)	Beyotime's recombinant human active form of human COX1 (rhCOX1) was expressed in HEK293 cells and purified, which contains the full length of COX1 (24-599aa) with a His tag (8X His) and a Twin-Strep tag (SAWSHPQFEKGGGSGGGSGGSAWSHPQFEK) at the C-terminus. Cyclooxygenase is a bifunctional enzyme that first catalyzes the addition of two moles of molecular oxygen to arachidonic acid to form the hydroperoxide PGG ₂ , then reduces the hydroperoxide to the alcohol, PGH ₂ , by a peroxidase activity. Cyclooxygenase is found in two forms: COX1, which is constitutively expressed in most cells, is responsible for the production of prostaglandins that maintain homeostasis; and COX2, which is upregulated in inflammatory cells in response to an inflammatory stimulus (cytokines, LPS, etc.), is responsible for the production of prostaglandins at the site of inflammation [1].
产品用途 (Applications)	Active human COX1 is useful in studying enzyme regulation, determining target substrates, screening COX1 inhibitors or as a positive control in COX1 activity assays.
外观 (Physical appearance)	Liquid
浓度 (Concentration)	Batch specific
活性 (Biological activity)	≥10U/μl
活力单位 (Unit definition)	One unit is defined as the amount of enzyme required to consume 1nmol of oxygen per 1 minute at 37°C in 100mM Tris pH8.0, 200μM arachidonic acid and 1.25μM hemin.
纯度(Purity)	≥90% by SDS-PAGE
储存液 (Storage buffer)	10mM HEPES (pH7.5), 100mM NaCl, 10% Glycerol

➤ 本产品经SDS-PAGE电泳检测蛋白纯度和分子量请参考图1。

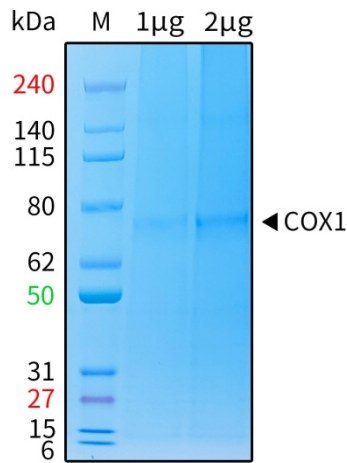


图1. 碧云天Recombinant Active Human COX1 (His & Twin-Strep-Tag) (P2530)的SDS-PAGE电泳检测效果图。本蛋白经 BeyoGel™ Elite PAGE 预制胶(Bis-Tris, 4-15%, 10孔) (P0856)电泳, Marker为BeyoColor™ 彩色预染蛋白分子量标准 (6.5-270kD) (P0071/P0072), 并经BeyoBlue™考马斯亮蓝超快染色液(P0017F)染色。实际结果会因每批次蛋白浓度、实验条件、检测仪器等的不同而存在差异, 图中数据仅供参考。

➤ 本产品的酶活性(Biological activity)检测效果请参考图2。

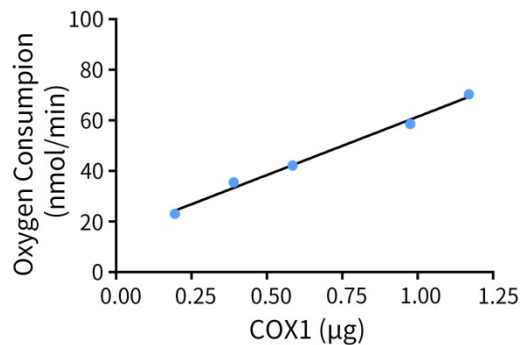


图2. 碧云天Recombinant Active Human COX1 (His & Twin-Strep-Tag) (P2530)的酶活性检测效果图。X轴为COX1蛋白的质量(μg), Y轴为对应单位时间内耗氧量(nmol/min)。实际结果因每批次蛋白浓度、实验条件、检测仪器等的不同而存在差异, 图中数据仅供参考。

➤ 本产品可用于COX1抑制剂的筛选。本产品用于检测NS-398抑制剂(S1771)的 IC_{50} 约为 $83.72\mu\text{M}$, 用于检测Curcumin抑制剂(SC0299)的 IC_{50} 约为 $1.56\mu\text{M}$, 检测效果请参考图3。

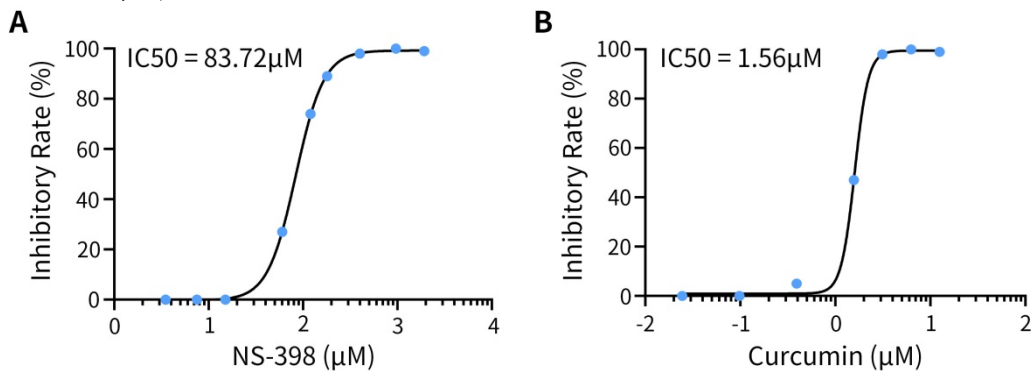


图3. 碧云天Recombinant Active Human COX1 (His & Twin-Strep-Tag) (P2530)用于抑制剂筛选的检测效果图。实际结果因实验条件、检测仪器等的不同而存在差异, 图中数据仅供参考。

包装清单:

产品编号	产品名称	包装
P2530-1KU	Recombinant Active Human COX1 (His & Twin-Strep-Tag) (10U/ μl)	100 μl
P2530-5KU	Recombinant Active Human COX1 (His & Twin-Strep-Tag) (10U/ μl)	500 μl
P2530-20KU	Recombinant Active Human COX1 (His & Twin-Strep-Tag) (10U/ μl)	500 μl × 4
—	说明书	1份

保存条件：

-80°C保存，一年有效。避免反复冻融。

注意事项：

- 本产品仅限于专业人员的科学研究用，不得用于临床诊断或治疗，不得用于食品或药品，不得存放于普通住宅内。
- 为了您的安全和健康，请穿实验服并戴一次性手套操作。

使用说明：

1. 收到产品后请立即按照说明书推荐的条件保存。
2. 具体的最佳工作浓度请自行参考相关文献，或者根据实验目的，以及特定细胞和动物，通过实验进行摸索和优化。

参考文献：

1. Smith WL, Song I. Prostaglandins Other Lipid Mediat. 2002. 68-69:115-28.

相关产品：

产品编号	产品名称	包装
P2530	Recombinant Active Human COX1 (His & Twin-Strep-Tag)	1/5/20KU
P2532	Recombinant Active Human COX2 (His & Twin-Strep-Tag)	1/5/20KU
S0165S	环氧化酶-1 (COX-1)抑制剂筛选试剂盒	100次
S0168	环氧化酶-2 (COX-2)抑制剂筛选试剂盒	100次
S1771	NS-398 (COX-2抑制剂)	1mg
S1772	NS-398 (COX-2抑制剂)	5mg
SC0299-10mM	Curcumin (COX抑制剂)	10mM×0.2ml
SC0299-5mg	Curcumin (COX抑制剂)	5mg
SC0299-25mg	Curcumin (COX抑制剂)	20mg

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