

# Crystallography

## New Tools and Crystallography Services for Structure Based Drug Discovery

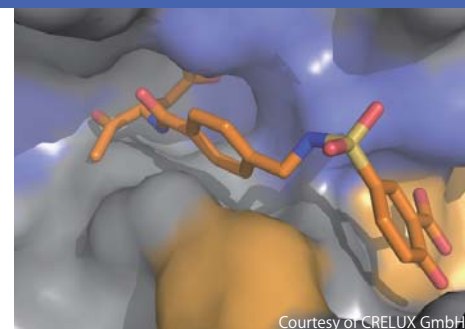


Carna now offers Co-Crystallography Services & Crystal Grade Proteins through collaboration with CRELUX GmbH. We have expanded our extensive offering of products and services to include support for Structure-based Drug Discovery. Opt for Co-crystallography Services to visualize your drug candidates with the targeted enzyme, or grow-your-own crystals using our Crystal Grade Proteins.

Targets listed on reverse side

### CRELUX's Co-Crystallography Services "XPRESS"

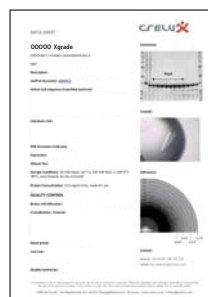
As the process of Structure Based Drug Discovery is very important, we offer the CRELUX's crystallography service called **XPRESS** for a variety of kinases as listed on reverse side. Our collaboration project plans display a modular set up including free to choose exit points. You will profit from low fixed costs and predominantly success-based payment schedules. We are also going to offer a custom-crystallize service including DNA cloning, expression, and co-crystallization.



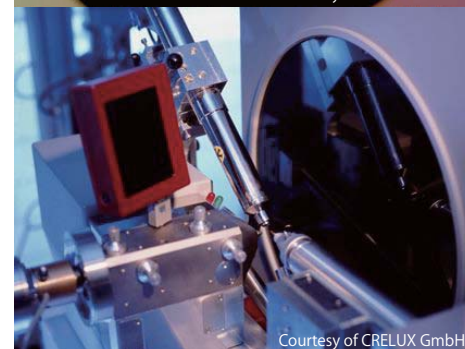
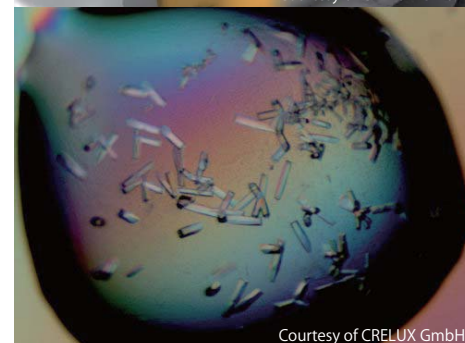
### Crystal Grade Proteins (Kinase and Non-Kinase Targets)

In addition to the Co-Crystallography Service, most of Off The Shelf proteins<sup>(\*1)</sup> shown on the list can be offered as Crystal Grade Proteins<sup>(\*2)</sup> for a fast, reliable, and affordable procedure of co-crystallization performed by customer-self. Expression, purification, and crystallization for **XPRESS** targets have been established by CRELUX.

Also, crystal grade proteins developed by Carna Biosciences<sup>(\*3)</sup> solely are available. Crystallization is confirmed on all crystal grade proteins from CRELUX and Carna before dispatch. A protocol<sup>(\*4)</sup> including the condition comes with products.



Sample - CRELUX's Data Sheet



(\*1) Some proteins may require compounds at the time of expression, therefore, not available for individual purchase.

(\*2) Proteins may not be active, crystallization is prioritized.

(\*3) Crystal grade proteins produced by Carna Biosciences has activity.

(\*4) This is to check the quality of product.

For more details, please visit our website.

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# Co-Crystallography Service & Crystal Grade Proteins "XPRESS"

New Tools and Crystallography Services for Structure Based Drug Discovery

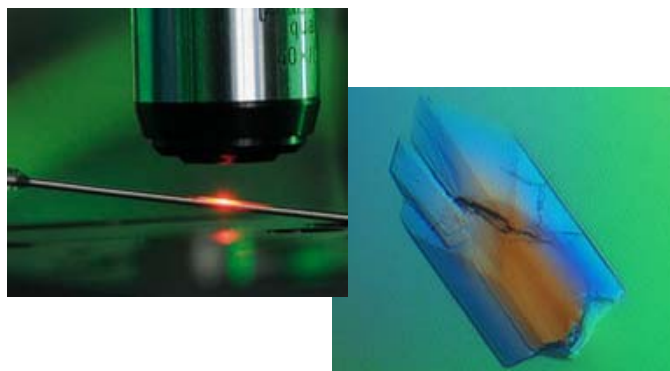
The Protein Kinases listed below are currently available for Co-Crystallography Services, and most(\*1) can be offered as Crystal Grade Proteins(\*2).

## Available Targets - Protein Kinases

ABL	IRAK4
ACVR2A	JAK1
ACVR2B	JAK2
AKT1	JAK3
AKT2	JNK1
ALK	JNK2
ALK1 <b>NEW</b>	JNK3
ALK5	LCK
ASK1	LIMK1 <b>NEW</b>
AurA	LYN
AXL1	MER(AXL2)
BRAF	MET
C-FMS	MKNK2
C-KIT	MPS1
CDK2	NEK2
CHK1	p38
CK1 $\delta$ <b>NEW</b>	PAK1
CK1 $\gamma$	PAK4
DAPK3	PDK1
EGFR	PGK1
EPHB4	PIM1
ERK2	PIM2
ERK3/MAPK6	PKA
FAK	PKC $\iota$
FES	PLK1
FGFR1	PLK4
FGFR2	ROCK2
FGFR3	RSK1
FLT3	RSK2
GSK3 $\beta$	SRC
HASPIN	SYK
HCK	TYK2 <b>NEW</b>
IGF1-R	

## Available non-Kinase Targets

Epigenetic Targets	
BRD2	<b>NEW</b>
BRD3	<b>NEW</b>
BRD4	<b>NEW</b>
BRD9	<b>NEW</b>
CREBBP	<b>NEW</b>
EHMT1	
HDAC4	
HDAC7	
HDAC8	
JMJD2A	
JMJD2C	
JMJD2D	
MYST1	
PARP1	
PARP12	
PARP14	
PARP15	
PARP3	
SIRT5	
TANKYRASE1	
Phosphatases	
PTP-1B	
PTPN22	
Shaperons	
HSP70	
HSP70-BAG1	
HSP90	
HSP90-CDC37	
Nuclear Hormone Receptors	
ER $\alpha$	
GR	
MCR	
PPAR $\alpha$	
PPAR $\delta$	
PPAR $\gamma$	
PR	
ROR $\alpha$	<b>NEW</b>
ROR $\beta$	<b>NEW</b>
ROR $\gamma$	
Others	
CYP-2D6	
DJ-1	
PSAT1	<b>NEW</b>
PHGDH	<b>NEW</b>
PKM2	<b>NEW</b>



Courtesy of CRELUX GmbH

(\*1) Some proteins may require compounds at the time of expression, therefore, not available for individual purchase.

(\*2) Proteins may not be active, crystallization is prioritized.

Visit our website and check the latest available targets!

Updated: 2012/1/23

Note: The contents of this list are subject to change without notice.