CARNA BIOSCIENCES

Cell-Based Tyrosine Kinase Assay Panel

ADVANCED CELLULAR DYNAMICS

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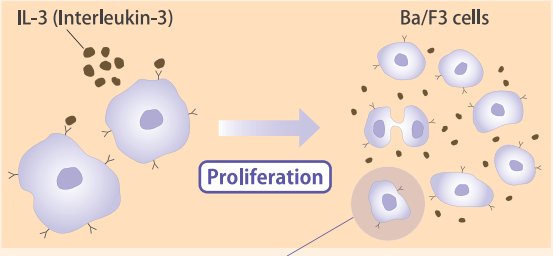
Largest Commercially Available Panel of Tyrosine Kinase Cell-Based Assays

Why ACD?

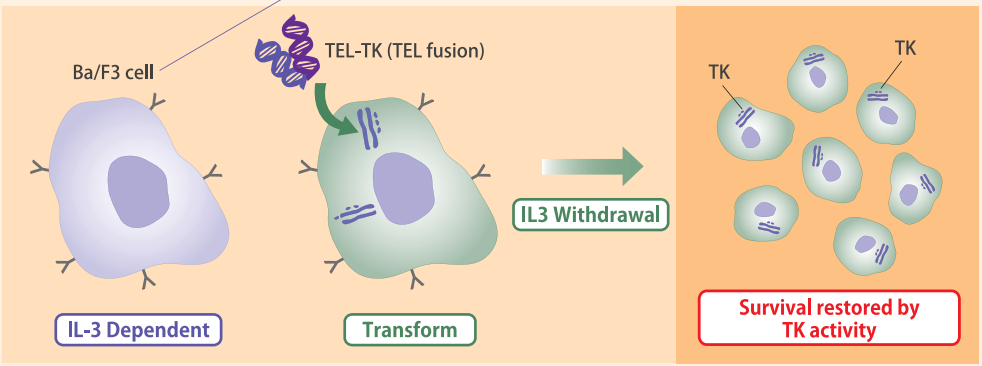
- Comparative Cell-Based Analysis
- To Discover Direct Inhibitory Activity To Targeted Kinases
- Ready-To-Run 52 Tyrosine Kinase (TK) Panel
- Time & Cost Saving Solution for Your In-house Cellular Assays

Principle & Method of ACD Cell-Based Assays

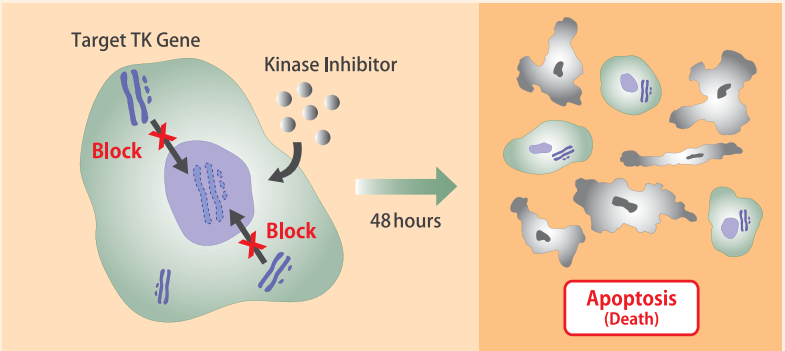


The assay principle builds upon the work of Daley & Baltimore (1988)*.
In this system, IL3-dependent Ba/F3 cells are modified to express an activated recombinant kinase. Following removal of IL3, the modified cells are dependent on the activity of the recombinant kinase for survival and proliferation.

* Daley and Baltimore; Proc. Natl. Acad. Sci. USA. 1988; 85(23):9312-6



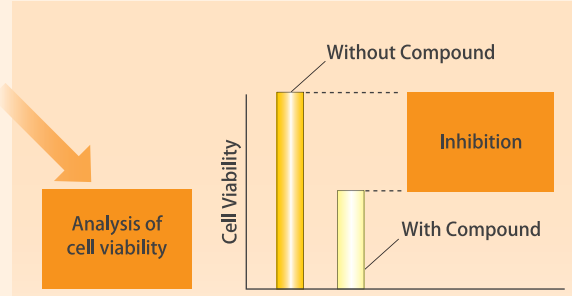
Ba/F3 cells are transformed by inducting target TEL-TK genes via viral vectors. Activity of the transformed kinase overrides IL3 dependency for cellular proliferation and survival – modified cells no longer require IL3 for growth.



If the kinase inhibitor (compound) specifically blocks the activity of the recombinant kinase, the modified cells undergo programmed cell death (apoptosis).

About ACD

Advanced Cellular Dynamics (San Diego, CA USA) is a leading provider of cell-based assay panel technologies and services to the life-sciences community. ACD develops and deploys families of cell-based screening assays, encompassing broad representations of important target gene families. Their assays are designed to simplify high-throughput screening and profiling of chemical entities in a physiologically relevant cellular environment.



Each assay is engineered to be dependent upon maintenance of the introduced kinase activity for survival. Inhibition of this activity results in a directly proportional decrease in cell viability.

Visit our website for more information:
www.carnabio.com

To learn more, please contact our Japanese or U.S. Office.

Carna Biosciences, Inc.
BMA 3F, 1-5-5 Minatojima-Minami, Chuo, Kobe 650-0047 JAPAN
TEL +81 78-302-7091 / FAX +81 78-302-7086
E-mail: info@carnabio.com

CarnaBio USA, Inc.
209 West Central Street, Suite 127, Natick, MA 01760 USA
Toll Free 888-645-1233 / Local 508-650-1244 / Fax 508-650-1722
E-mail: orders@carnabio.com

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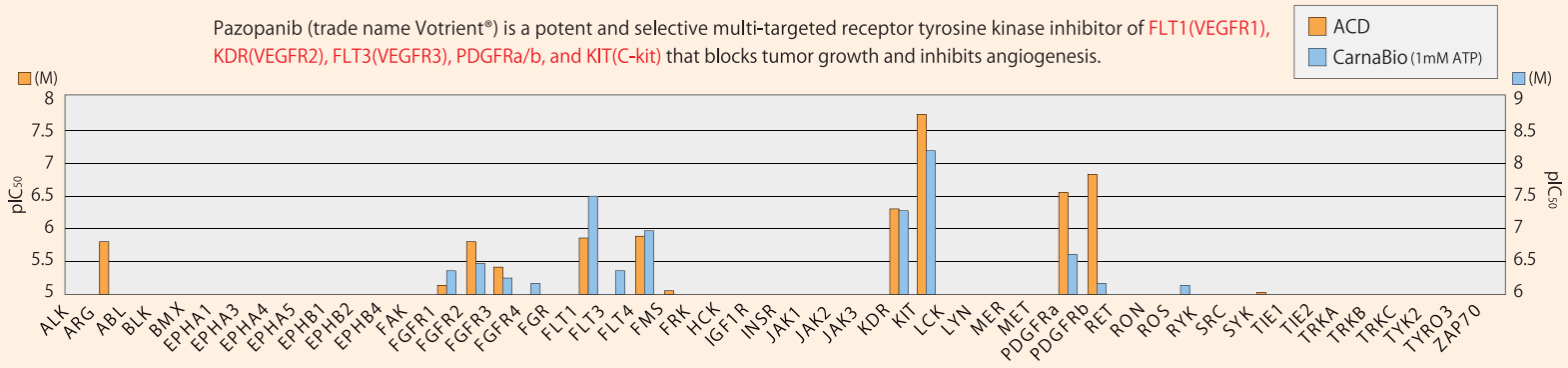
Check Out Our Complementary Technologies!

Sample of Study

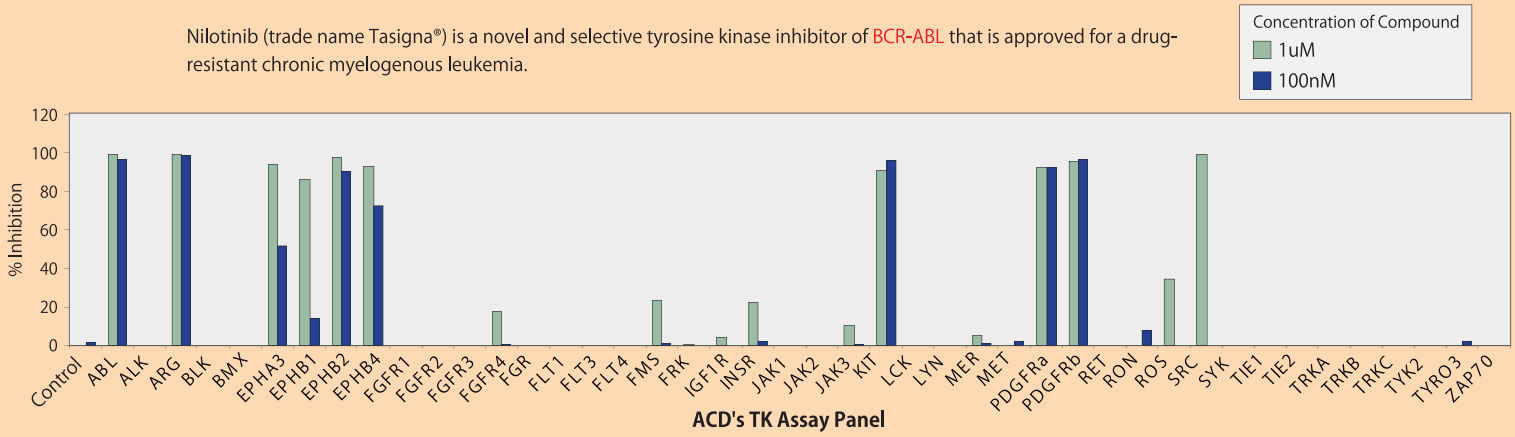
Comparison between ACD and CarnaBio - pIC50 Determination Study of Pazopanib (Votrient®)

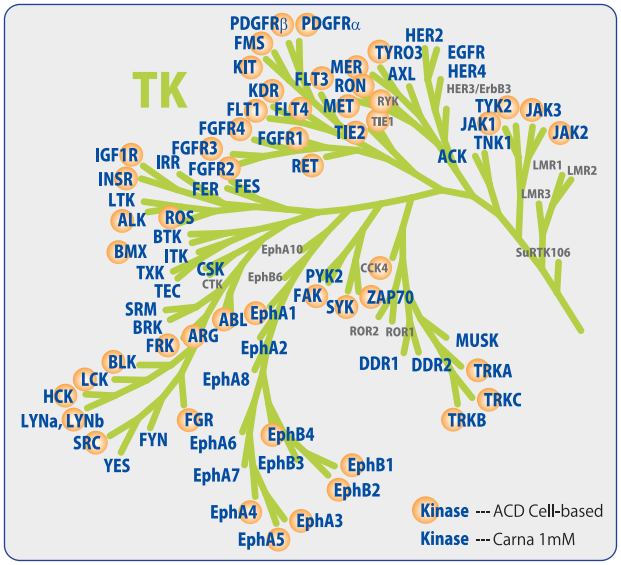
Pazopanib (trade name Votrient®) is a potent and selective multi-targeted receptor tyrosine kinase inhibitor of FLT1(VEGFR1), KDR(VEGFR2), FLT3(VEGFR3), PDGFRa/b, and KIT(C-kit) that blocks tumor growth and inhibits angiogenesis.



% Inhibition Study of Nilotinib (Tasigna®) performed by ACD with TK Assay Panel

Nilotinib (trade name Tasigna®) is a novel and selective tyrosine kinase inhibitor of BCR-ABL that is approved for a drug-resistant chronic myelogenous leukemia.





ACD Cell-Based TK Assays Available for Screening Services

Total 52 Kinases - Broad Coverage of the Tyrosine Kinome!

ABL (BCR-ABL)	EphB4	HCK	PDGFRa	TRKC (NTRK3)
ALK	FAK	IGF1R	PDGFRb	TYK2
ARG (ABL2)	FGFR1	INSR	RET	TYRO3
BLK	FGFR2	JAK1	RON (MST1R)	ZAP70
BMX	FGFR3	JAK2	ROS (ROS1)	
CCK4 (PTK7)	FGFR4	JAK3	RYK	
EphA1	FGR	KDR	SRC	
EphA3	FLT1	KIT	SYK	
EphA4	FLT3	LCK	TIE1	
EphA5	FLT4	LYN	TIE2	
EphB1	FMS (CSF1R)	MER (MERTK)	TRKA (NTRK1)	
EphB2	FRK	MET	TRKB (NTRK2)	