

**Antibodies Optimized  
by the HTR on the Ventana Discovery System**

Antibody	Clone	Vendor	Cat No	Species
ADPR/Perilipin 2		Proteintech	15294-1-AP	Rabbit (poly)
ALDH1a1	D9Q8E	Cell Signaling Technology	54135	Rabbit (mono)
Alpha Smooth Muscle Actin	SP171	Abcam	ab150301	Rabbit (mono)
Androgen Receptor	AR441	Dako	M3562	Mouse (mono)
Arginase (Liver Arginase)	EPR6672 (B)	Abcam	ab133543	Rabbit (mono)
ARHGDI A		Atlas Antibodies	HPA021407	Rabbit (poly)
ASS1	D4O4B	Cell Signaling Technology	70720	Rabbit (mono)
ATP6V1B1		Abcam	ab110752	Rabbit (poly)
Beta-Catenin		Proteintech	66379-1-1g	Mouse (mono)
BiP	C50B12	Cell Signaling Technology	3177	Rabbit (mono)
Caspase-3		Cell Signaling Technology	9662	Rabbit (poly)
CD3	RBT-CD3	Bio SB (Cancer Diagnostics)	BSB 6425	Rabbit (mono)
CD4	SP35	Cell Marque	104R-14	Rabbit (mono)
CD4	RBT-CD4	Bio SB (Cancer Diagnostics)	BSB5151	Rabbit (mono)
CD8	SP57	Ventana	790-4460	Rabbit (mono)
CD10		Abcam	ab82073	Rabbit (poly)
CD19	EPR5906	Abcam	ab134114	Rabbit (mono)
CD24	SN3	Invitrogen	MA5-11828	Mouse (mono)
CD31	JC70A	Dako	M0823	Mouse (mono)
CD31		Abcam	ab182981	Rabbit (mono)
CD34	QBEnd10	Dako	M7165	Mouse (mono)
CD44	156-3C11	Cell Signaling Technology	3570	Mouse (mono)
CD45 LCA	RP2/18	Ventana	760-2505	Mouse (mono)
CD68	PG-M1	Dako	M0876	Mouse (mono)
CD68	PG-M1	Dako	GA613	Mouse (mono)
CD68		Invitrogen	PA5-89134	Rabbit (poly)
CD69	FN50	Invitrogen	14-0699-82	Mouse (mono)
CD105	Endoglin SN6h	Dako	M3527	Mouse (mono)
Cdc42		Atlas	HPA069590	Rabbit (poly)
CDX-2	EPR2764Y	Abcam	ab76541	Rabbit (mono)
COX-1		Abcam	ab244261	Rabbit (poly)
COX-2	CX-294	Dako	M3617	Mouse (mono)
COX-2	D5H5	Cell Signaling Technology	12282	Rabbit (mono)
CrkL		Abcam	ab151791	Rabbit (poly)
CRM1		Abcam	ab24189	Rabbit (poly)
CSF3R (Colony Stimulating Factor)		Atlas	HPA048086	Rabbit (poly)
Cytokeratin 5	EP1601Y	Abcam	ab52635	Rabbit (mono)
Cytokeratin 10	EP1607IH CY	Abcam	ab76318	Rabbit (mono)
Cytokeratin AE1/AE3	AE1/AE3	Dako	GA053	Mouse (mono)
D2-40 (Podoplanin)	D2-40	Dako	M3619	Mouse (mono)
EGFR	D38B1	Cell Signaling Technology	4267	Rabbit (mono)
EHMT2/G9A	EPR-18894	Abcam	ab185050	Rabbit (mono)
ERG	EP111	Cell Marque	434R-14	Rabbit (mono)
Estrogen Receptor	SP1	Ventana/Roche	790-4324	Rabbit (mono)
Fibrinogen	5C5	Thermo Scientific	LF-MA0108	Mouse (mono)
FoxO1	C29H4	Cell Signaling Technology	2880	Rabbit (mono)
FoxO1	D8T1S	Cell Signaling Technology	97635	Mouse (mono)
GATA3	L50-823	Cell marque (Ventana)	390M-10 (760-48	Mouse (mono)
G-CSF		Abcam	ab9691	Rabbit (poly)
GFAP		Abcam	ab7260	Rabbit (poly)
Giantin		Abcam	ab93281	Rabbit (poly)
Gli1		Abcam	ab92611	Rabbit (poly)

Antibody	Clone	Vendor	Cat No	Species
Glycodelin	PAEP/Glycodelin	Abcam	ab17247	Mouse (mono)
Hes1		Abcam	ab71559	Rabbit (poly)
HMGB1 (Acetyl-Lys12)		Aviva Sys Bio	OASG03545	Rabbit (poly)
Iba1		Abcam	ab153696	Rabbit (poly)
Ki-67	MIB-1	Dako	M7240	Mouse (mono)
Ki-67	SP6	Millipore Sigma	SAB5500134	Rabbit (mono)
Ki-67	SP6	Invitrogen	MA5-14520	Rabbit (mono)
LAMP2		Proteintech	66301-1-Ig	Mouse (mono)
LAMTOR4	D4P60	Cell Signaling Technology	13140	Rabbit (mono)
Langerin	CD207	Invitrogen	PA1-41053	Rabbit (poly)
LC3	5F10	NanoTools	0231-100	Mouse (mono)
Mammaglobin	304-1A5	Dako	M3625	Mouse (mono)
MART-1/melan A	A103	Ventana	790-2990	Mouse (mono)
mCherry		Novus Biologicals	NBP2-25157	Rabbit (poly)
Mitochondria	113-1	Millipore Sigma	MAB 1273	Mouse (mono)
MMP1	EP1247Y	abcam	ab52631	Rabbit (mono)
MMP1		Bioss	bs-0463R	Rabbit (poly)
MMP3	rMMP3/1730	Abcam	ab234405	Mouse (mono)
MMP10		Abcam	ab38930	Rabbit (poly)
MSI2	EP1305Y	Abcam	ab76148	Rabbit (mono)
Myeloperoxidase	EPR20257	Abcam	ab208670	Rabbit (mono)
Neutrophil Elastase		Abcam	ab68672	Rabbit (poly)
NKp46 (CD335)	CD335	ThermoFisher Sci	PA5-79720	Rabbit (poly)
Notch1		Abcam	ab8925	Rabbit (poly)
Notch3/N3ECD	1.00E+04	Millipore Sigma	MABC594	Mouse (mono)
OCIAD1		Novus Biologicals	H00054940-B01P	Mouse (mono)
p16 (CINtec®)	E6H4	Ventana	705-4713	Mouse (mono)
p16-INK4a	INK4a	BD Pharmingen	15-1325GR	Mouse (mono)
p21 Waf1/Cip1	SX118	Santa Cruz Biotechnology	sc-53870	Mouse (mono)
P2Y2	H-70	Santa Cruz Biotechnology	sc-20124	Rabbit (poly)
PAX8		Proteintech	10336-1-AP	Rabbit (poly)
phospho-Akt	Ser473 D9E	Cell Signaling Technology	4060	Rabbit (mono)
phospho-EGFR	Tyr1068	Cell Signaling Technology	2234	Rabbit (poly)
p-HSP27	Ser82 (D1H2F6)	Cell Signaling Technology	9709	Rabbit (mono)
p-MAPKAPK-2 (p-MK2)	Thr334	Cell Signaling Technology	3041	Rabbit (poly)
phospho p44/42 MAPK (Erk 1/2)	Thr202/Tyr 204	Cell Signaling Technology	4376	Rabbit (mono)
phospho-S6 Ribosomal Protein	Ser240/244	Cell Signaling Technology	2215	Rabbit (poly)
p-Tau (AT8)	Ser202,Thr205	Invitrogen	MN1020	Mouse (mono)
PROX1	EPR19273	Abcam	ab199359	Rabbit (mono)
PTEN XP	D4.3	Cell Signaling Technology	9188	Rabbit (mono)
Progesterone Receptor	1E2	Ventana/Roche	790-2223	Rabbit (mono)
Progesterone Receptor	PgR1294	Dako	M3568	Mouse (mono)
Progesterone Receptor Ab-6	hPRa6	Epredia	MS-196-P1ABX	Mouse (mono)
Rac1		Atlas Antibodies	HPA047820	Rabbit (poly)
RPL35A		Invitrogen	PA5-51312	Rabbit (poly)
RUFY3		Atlas Antibodies	HPA022952	Rabbit (poly)
SATB2	EP281	Cell Marque	384R	Rabbit (mono)
Smad3	EP568Y	Abcam	ab40854	Rabbit (mono)
SNV		(researcher provided)		Rabbit (poly)
SPA17		Invitrogen	PA5-58013	Rabbit (poly)
SPAM1		Invitrogen	PA5-76062	Rabbit (poly)
SPTAN1		Atlas Antibodies	HPA007927	Rabbit (poly)
ST14		Invitrogen	PA5-99650	Rabbit (poly)
TAP1		Abcam	ab83817	Rabbit (poly)

Antibody	Clone	Vendor	Cat No	Species
TTF-1 (Thyroid Transcription Factor)	SPT24	Novocastra/Leica	NCL-L-TTF-1	Mouse (mono)
Thyroglobulin	DAK-Tg6	Dako	M0781	Mouse (mono)
TGF $\beta$ Receptor I		Abcam	ab31013	Rabbit (poly)
TMEM119 -c-terminal		Abcam	ab185333	Rabbit (poly)
TROP-2		R&D Systems	AF650	Goat
TROP-2		Abcam	ab214488	Rabbit (mono)
Tyrosine Hydroxylase	LNC1	Millipore	MAB318	Mouse (mono)
UCP1		Abcam	ab23841	Rabbit (poly)
uPA		(researcher obtained)		Rabbit (mono)
uPAR		American Diagnostica	3936	Mouse (mono)
VATPase C1	C1 (H300)	Santa Cruz	sc-20944	Rabbit (poly)
VEGF	EP1176Y	Abcam	ab52917	Rabbit (mono)
VEGF Receptor 2	55B11	Cell Signaling Technology	2479	Rabbit (mono)
VEGF Receptor 2	D5B1	Cell Signaling Technology	9698	Rabbit (mono)
Vinexin		Abcam	ab26971	Rabbit (poly)
WASHC2A		Atlas Antibodies	HPA047844	Rabbit (poly)
ZEB2		Invitrogen	PA5-38536	Rabbit (poly)

NOTE: HTR does not stock antibodies. Researchers are responsible for providing antibodies for their projects. Antibodies that have been previously optimized (matching vendor and catalog number above), will require a lot validation.