List of RT-PCR primers of the De Robertis laboratory

• all PCR reactions were performed using the following cycle conditions: 95˚C denaturation, 55˚C annealing, 72˚C elongation

• the given amount of cycles necessary for amplification of a specific fragment represents the value we are using in our laboratory. It might however be necessary to adjust it to the conditions used.

• for those primers which have not been published yet please cite this page (….)

Gene	Accesion No.	Forward primer	Reverse primer	Loc. forw.	Loc. rev.	Length	Cycles	Reference
Activin beta B	S61773	5'-CGG ATC CAG TTT TAC ATT GAC -3'	5'- CGA ATT CTG CAG CAC GAG TTC-3'	914	1105	212	30	Dohrmann et al. (1993) Dev.Biol. 157
Alpha cardiac actin	X03469	5'-TCC CTG TAC GCT TCT GGT CGT A -3'	5'-TCT CAA AGT CCA AAG CCA CAT A -3'	480	711	253	20	Stutz,F.et al (1986) J. Mol. Biol.
Alpha cardiac actin	X03469	5'-GCT GAC AGA ATG CAG AAG-3'	5'-TTG CTT GGA GGA GTG TGT-3'	987	1195	226	20	unpublished
alpha Globin	J00976	5'-TTG CTG TCT CAC ACC ATC CAG G-3'	5'-TCT GTA CTT GGA GGT GAG GAC G-3'	40	144	126	25	Steinbesser et al (1995) Embo J
beta B1 Crystallin	unsubmitted	5'-TGC CTG GAG TGG AAC AAT GC -3'	5'-TGT TGA ACC ATC CCA TAG CC-3'	not known	not known	200	30	Altmann et al (1997) Dev. Biol. 185
beta Catenin	M77013	5'-AGA TGC AGC AAC TAA ACA GGA -3'	5'-GTA CTG CAT TTT GAG CCA TCT -3'	1428	1697	290	30	McCrea et al (1991) Science
BMP4	X64538							
Cerberus	U64831	5'-GCT GAA CTA TTT GAT TTC ACC-3'	5'-ATG GCT TGT ATT CTG TGG GGC G-3'	283	516	255	25	Bouwmeester,T et al (1996) Nature
CG13	unsubmitted	5'-AGT TGT TGA TTT TGT GAA AAC C-3'	5'-CTT CTT CTA AAT CAA CAA CAG G-3'	not known	not known	216	25	Sasai et al (1995) Nature
Chordin	L35764	5'-CCT CCA ATC CAA GAC TCC AGC AG-3'	5'-GGA GGA GGA GGA GCT TTG GGA CAA G-3’	398	640	267	25	Sasai et al (1994) Cell
Collagen type II	M63595	5'-AGG CTT GGC TGG TCC TCA AGG T-3'	5'-TGT AAC GCA TAG GGT CGG GTC C-3'	3470	3846	398	25	Sasai et al (1996) Embo J.
CPL 1 (choroid p. lipoc)	X84414	5'-CAG CAT CAG CAG CCA ATC AT-3'	5'-AGC TGC TCC GTC TTG AAA TAA-3'	94	381	308	25	unpublished
Cytokeratin	M11940	5'-CAC CAG AAC ACA GAG TAC-3'	5'-CAA CCT TCC CAT CAA CCA-3'	1121	1320	217	20	Wessely and De Robertis (2000) Development
Derriere	AF065135	5'-GAC AGC AAG ATG AAC AGG AA-3'	5'-CTA CAA ATG ATC GAT TGC CT-3'	508	665	177	25	Agius et al. (2000) Development
Dickkopf-1	AF030434	5' CAC CAA GCA CAG GAG GAA 3'	5' TCA GGG AAG ACC AGA GCA 3'	737	971	252	25	Agius et al. (2000) Development
Dishevelled	U31552	5'-CCG ATT TGG CTT CTG TTG TGA-3'	5'-GGT GTG GGG CTT GAT ACT GGT-3'	1247	1646	420	30	Sokol et al (1995) Development
EF1alpha	X55324	5'-CCT GAA CCA CCC AGG CCA GAT TGG TG-3	5'-GAG GGT AGT CAG AGA AGC TCT CCA CG-3	1053	1248	221	20	Agius et al. (2000) Development
Endodermin	L63543	5'-AGC AGA AAA TGG CAA ACA CAC-3'	5'-GGT CTT TTA ATG GCA ACA GGT-3'	1521	1868	368	25	Sasai et al. (1996) Embo J.
Engrailed 2	X62974	5'-ATG AGC AGA ATA ACA GGG AAG TGG A-3’	5'-CCT CGG GGA CAT TGA CTC GGT GGT G-3'	464	697	258	25	Sasai et al (1995) Nature
ET	AF173940	5'-CTC CAT GCA CAA ATA CCA-3'	5'-TTT TCT CTC CTG CCA TTC-3'	1231	1423	210	25	unpublished
Eya	AF352028	5'-TGA GCA GCA GTG ACA TTG-3'	5'-GAT TCC ATA AGG CTG TCC-3'	140	388	266	25	unpublished
F-Spondin	L09123	5'-TCT GGC AGT ATG TGG CAA CGT C-3'	5'-GTA CAA TGC TCG CCT TGA GTC TC-3'	26	459	456	30	Altaba, AR et al (1993) PNAS
Follistatin	S69801	5'-CAG TGC AGC GCT GGA AAG AAA T-3'	5'-TGC GTT GCG GTA ATT CAC TTA C-3'	852	1060	230	30	Agius et al. (2000) Development
Fork Head Like	AF223426	5'-GCA GTG GGG AAG CAC AAC-3'	5'-AGG TGA GGT AGC TGG GGA-3'	25	343	336	25	De Robertis et al. (1997) Cold. Spring. Harb. Symp.

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Gene	Accesion No.	Forward primer	Reverse primer	Loc. forw.	Loc. rev.	Length	Cycles	Reference
FrzB-1	U78598	5'-GAC CAC TGA ATG TAG CCA GGA C-3'	5'-GGA GAT GCA GAC TCC TCT GTC A-3'	297	495	220	25	Agius et al. (2000) Development
GATA-1A	M76566	5'-CAG GAG TTC AGT CTG TTT CAG-3'	5'-CAG GGT TCT CAC TTG CAT TC-3'	597	839	262	25	unpublished
GATA-2	M76564	5' CTA AAC AGA GGA GCA AGA GCA G 3'	5' CCT GGA AAG TTC CTC AAA AC 3'	982	1381	419	25	unpublished
Goosecoid	M63872	5'-CAC ACA AAG TCG CAG AGT CTC-3'	5'-GGA GAG CAG AAG TTG GGG CCA-3'	29	308	300	25	Blumberg et al (1991) Cell
GS17	X05215	5'-ATG CCA GTC CAA CTT CAA GGC-3'	5'-CCT CTA GCA TAG ATG GAC TGT-3'	110	440	351	25	unpublished
GSK3	U31862	5'-CTG CTG GAA TAC ACC CCG ACC TC-3'	5'-CGC GCT CCC CAG TGT TTG AAT-3'	958	1196	259	30	Dominguez, I et al (1995) PNAS
Histone H4	X03017	5'-CGG GAT AAC ATT CAG GGT A-3'	5'-TCC ATG GCG GTA ACT GTC-3'	1491	1661	188	25	Steinbesser et al (1995) Embo J
HNF1β	X76052	5'-GCA GCA GGA ACT CCT CAA-3'	5'- TGG TGG CCA TTG GTG AGA-3'	147	309	180	25	Hudson et al. (1997) Cell
IFABP	L19946	5'-CTG GTT CCT ACA GGA C-3'	5'-GTA TGC CCA ATG TGC C-3'	286	468	198	30	Henry et al (1996) Development 122, 1007-1015
Insulin	M24443	5'-ATG GCT CTA TGG ATG CAG TG-3'	5'-AGA GAA CAT GTG CTG TGG CA-3'	4	277	293	30	unpublished
Krox 20	S56884	5'- CCG GCC CAT CCT CAG ACC CAG AAA-3'	5'- CGC CAC GCC GCT GTT GCC GAG TTC-3'	904	1234	354	25	Sasai et al (1995) Nature
LFABP	AF068301	5'- ACC GAG ATT GAA CAG AAT GG-3'	5'- CCT CCA TGT TTA CCA CGG AC-3'	31	156	145	30	Henry et al (1996) Development 122, 1007-1015
Mix.1	M27063	5'-AAT GTC TCA AGG CAG AGG-3'	5'-GTG TCA CTG ACA CCA GAA-3'	741	1124	384*	30	unpublished *smaller band of 260bp appears
Mixer	AF068263	5'-CAC CAG CCC AGC ACT TAA CC-3'	5'-CAA TGT CAC ATC AAC TGA AG-3'	132	288	176	25	Henry et al (1996) Development 122, 1007-1015
Msx-1	X58773	5'-GCT AAA AAT GGC TGC TAA-3'	5'-AGG TGG GCT GTG TAA AGT-3'	705	843	156	25	unpublished
Myf 5	X16106	5'-AGG TCC AAC TGC TCC GAC GGC ATG AA-3'	5'-AGG AGA GAA TCC AGT TGA TGG AAA CA-3'	656	1037	407	30	Hopwood et al (1989) EMBO J.
MyoDa	X16106	5'-AGG TCC AAC TGC TCC GAC GGC ATG AA-3'	5'-AGG AGA GAA TCC AGT TGA TGG AAA CA-3'	656	1037	407	25	Hopwood et al (1989) EMBO J.
MyoDb	X16106	5'-AAC TGC TCC GAT GGC ATG ATG GAT TA-3'	5'-AAT GCT GGG AGA AGG GAT GGT GAT TA-3'	662	927	291	25	Hopwood et al (1989) EMBO J.
NCAM	M25696	5'-GCG GGT ACC TTC TAA TAG TCA C-3'	5'-GGC TTG GCT GTG GTT CTG AAG G-3'	1956	2072	138	25	Sasai et al (1995) Nature
NF-M	U85970	5'-GAA CAG TAC GCC AAG CTG ACT-3'	5'-GCA GCA ATT TCT ATA TCC AGA G-3'	864	1163	321	30	Sasai, et al (1995), Nature
Nkx 2.5	L25600	5'-GAG CTA CAG TTG GGT GTG TGT GGT-3'	5'- GTG AAG CGA CTA GGT ATG TGT TCA-3'	1085	1347	286	25	Sasai et al (1995) Nature
Noggin	M98807	5'-AGT TGC AGA TGT GGC TCT-3'	5'-AGT CCA AGA GTC TCA GCA-3'	995	1258	281	30	Agius et al. (2000), Development
N-tubulin	L32143	5'-ATG CTG ATC TAC GCA AAC-3'	5'-AGA TAG CAG CTA CTG TGA G-3'	828	1037	210	25	unpublished
ODC	X56316	5'-CAG CTA GCT GTG GTG TGG-3'	5'-CAA CAT GGA AAC TCA CAC C-3'	674	883	228	25	Agius et al. (2000), Development
OpsinB	L04692	5'-TGC CTC ACA CAA TTC CCA TC-3'	5'-TGG GAG GTG CCT TCA GAC TA-3'	1426	1643	237	25	Hemmati-Brivanlou and Melton (1994), Cell
Otx2	U19813	5'-GGA TGG ATT TGT TAC ATC CGT C-3'	5'-CAC TCT CCG AGC TCA CTT CCC-3'	274	568	315	25	Blitz et al (1995) Development
PAPC	AJ011918	5'-CTG GAC AAT TGT GCA-3'	5'-GGT TCG GTA TGT GCA-3'	435	772	352	30	Sung et al. (1999), Development
Pax 6	U76386	5'-CAG AAC ATC TTT TAC CCA GGA-3'	5'-ACT ACT GCT AAT GGG AAT GTG-3'	1182	1393	232	25	unpublished
Pintallavis	X65171	5'-GCA CCC AAC AAG ATG ATG ACA C-3'	5'-TCC AAT AGG AGC CTT TAC CTG G-3'	479	656	178	25	unpublished

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Rx2a	AF001049	5'-AGA CTG GTG GCT ATG GAG-3'	5'-ATA CCT GCA CCC TGA CTT-3'	535	781	264	25	unpublished
Siamois	Z48606	5' AAG ATA ACT GGC ATT CCT GAG C 3'	5' GGT AGG GCT GTG TAT TTG AAG G 3'	542	725	205	25	Agius et al. (2000) Development
Six-3	AF183571	5'-ACG AGC TGT CAA TGT TCC-3'	5'-CAG GAT GGA CTC GTG TTT-3'	219	374	173	25	unpublished
Six-6	AF276993	5'-CGA TCG TTG CCT TTC ACA-3'	5'-CCC GTC CCA AAT AGT CCT-3'	125	319	212	25	unpublished
Sizzled	AF059570	5'-GTC TTC CTG CTC CTC TGC-3'	5'-AAC AGG GAG CAC AGG AAG-3'	79	259	237	30	unpublished
Sox 2	AF022928	5'-GAG GAT GGA CAC TTA TGC CCA C -3'	5'-GGA CAT GCT GTA GGT AGG CGA-3'	484	677	214	25	De Robertis et al. (1997) Cold. Spring. Harb. Symp. Quant. Biol.
Sox17β	AJ001742	5' GTC ATG GTA GGA GAG AAC 3'	5' ATC TGT TTA GCC ATC ACT G 3'	570	820	269	25	Hudson (1997) Cell 91, 397-405
Troponin	L25721	5'-GCT TGT CCC GAT CTG AAC-3'	5'-GAG ATT GGC CCG TAG ATC-3'	371	613	260	30	unpublished
UVS 2	M27162	5'-CTC ATG AAC AGA ACA GAA GCG A-3'	5'-GAA GCG TAG TCA TAT TCA ATC C-3'	1	109	130	30	Steinbesser et al (1995) Embo J
Veg-T	U59483	5'- CAA GTA AAT GTG AGA AAC CG -3'	5'- CAA ATA CAC ACA CAT TTC CC -3'	1719	2058	359	25	Zhang (1998) Cell 94, 515-524
Vg1	M18055	5'-ATG CCT ATT GCT TCT ATT TGC -3'	5'- GGT TTA CGA TGG TTT CAC TCA -3'	2026	2165	160	25	Weeks (1987) Cell
XAG1	U76752	5'- CTG ACT GTC CGA TCA GAC-3'	5'- GAG TTG CTT CTC TGG CAT -3'	671	861	211	20	Sive (1996) Dev. Dyn. 205, 265-280
XANF-1	X60099	5'- AGC TTT CAC TAG GAG CCA GA -3'	5'- AGG TCC AAG GCT CTA TCA -3'	373	683	328	30	Zaraisky (1992) Dev. Biol. 152, 373-382
xBic-C	AF224746	5'-AAA ACT GGA GGG AAA GGA AT-3'	5'-CAA TCT CTT GCT GCT GGA AT-3'	2569	2804	255	25	Wessely and De Robertis (2000) Development
Xbra	M77243	5'- GCT GGA AGT ATG TGA ATG GAG -3'	5'-TTA AGT GCT GTA ATC TCT TCA -3'	433	731	319	25	Agius et al. (2000) Development
Xcat-2	X72340	5'-CCC AAA GCT GAG ACA CTG AAC T-3'	5'-GGG ACA GAA ACA AGT GGA ACA A-3'	384	608	246	30	unpublished
Xhox3	D10455	5'-ATA TGA TGA GCC ACG CAG CAG-3'	5'-CAG ATG CTG CAG CTC TTT GGC-3'	788	1088	321	25	Suzuki, et al. (1997), Biochem. Biophys. Res.Comm.
Xif 3	X16570	5'-ATC CTC CAG GCT ATC CAC CTC C-3'	5'- TAG CGG ACC TTC TCT ATG AAG C-3'	101	319	240	30	Sasai et al (1995) Nature
XLHbox6	M17447	5'-TAC TTA CGG GCT TGG CTG GA-3'	5'-AGC GTG TAA CCA GTT GGC TG-3'	325	539 `	234	30	Hemmati-Brivanlou and Melton (1994) Cell
XLHbox8	X16849	5'-GCA GTC ATG CTG AAC CTG ACA GAG AG-3'	5'-ATA GAA GGA ACT TGA TTG GGC TGG GA-3'	610	829	245	30	Sasai et al (1996) Embo J.
Xnot	L19566	5'-GCA GGC AGA GTT CAG TTG TG-3'	5'-GTG AGT TGC TTT GCC TGT GG-3'	453	604	171	30	Gont et al., (1993) Development 119, 991-1004
Xnr-1	U29447	5'-AAC CAT CAC TTA TCA ATA GG-3'	5'-TGT AGG CCA GTA AAA TCA TTA AC-3'	903	1264	384	30	Agius et al. (2000) Development
Xnr-1 short	U29447	5'-AAG TCA AGT CCT CTG CCA AC-3'	5'-AGA GGT TTC CCA TTT TCG AC-3'	772	942	190	25	unpublished
Xnr-2	U29448	5'-TAA GGG CTG AGG TTG AAG AAG-3'	5'-CGG GGT CTT CTG GTA TCT GTC-3'	679	869	211	25	Agius et al. (2000) Development
Xnr-3	U25993	5' -CGA GTG CAA GAA GGT GGA CA- 3'	5'- ATC TTC ATG GGG ACA CAG GA- 3'	954	1153	219	25	Agius et al. (2000) Development
Xnr-4	U79162	5'-GAA ATG GAG GTG ATG GTA GAC- 3'	5'- GAC CAT CAT CAC TAT CTG CTG- 3'	415	694	300	25	Agius et al. (2000) Development
Xolloid	Y09661	5'-CTA TTT GGA GAT TCG CAG TGG-3'	5'-TCA CAA CAA GCC TCT TTA CAG T-3'	2130	2411	303	25	unpublished
XPosterior	X58487	5 '-AGG ATT GTG AGG AGA GGT GCA GGC TC-3'	5'-CAA TGT CCC AAT GTG CTT ACC-3'	682	1122	461	25	unpublished
Xshh	L39213	5'-AAC ACA CCT GGG CAC ACC TC-3'	5'-TCC AAA AGC CAA GTC CCT AT-3'	1246	1470	244	25	unpublished
Xtwi	M27730	5'-AGT CGT GCC TTT GAA GCC ACT-3'	5'-CGC CGC TTG CAT AGA AAC AGT -3'	1014	1149	156	25	unpublished

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xwnt-11	L23542	5'-GAA GTC AAG CAA GTC TGC TGG-3'	5'- GCA GTA GTC AGG GGA ACT AAC CAG-3'	879	1180	325	35	unpublished
Xwnt8	X57234	5'-TAT CTG GAA GTT GCA GCA TAC A-3'	5'-GCA GGC ACT CTC GTC CCT CTG T-3'	611	865	276	25	Steinbesser et al (1995) Embo J