## Supplemental material

**JCB** 

Oda and Takeichi, http://www.jcb.org/cgi/content/full/jcb.201008173/DC1

A Mouse Cadherin-20

BLASTP search against non-vertebrate metazoan proteins

Accession / product name [species]	Identity	E-value
BRAFLDRAFT_201381 [Bf] (partial)	37%	4E-86
XP_002737092.1 [Sk] (partial)	35%	2E-80
XP_002736151.1 [Sk] (partial)	35%	8E-75
type-II cadherin [Cs]	34%	4E-74
XP_002740242.1 [Sk] (partial)	35%	1E-69
type-II cadherin [Ci] (partial)	36%	2E-60
At-cadherin [At], type-III cadherin	33%	2E-59
Fc2-cadherin [Fc], type-III cadherin	31%	3E-59

B Amphioxus BRAFLDRAFT 201381

BLASTP search against v	ertebrate p	roteins	

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Accession / product name [species]	Identity	E-value
XP_001921123.2 [Dr], type-III cadherin	46%	3E-138
XP_001920988.2 [Dr], type-III cadherin	45%	1E-125
XP_425119.2 [Gg], type-III cadherin	46%	3E-123
XP_002934429.1 [Xt], type-III cadherin	45%	1E-120
cHz-cadherin [Gg], type-III cadherin	45%	1E-118
CAG04544.1 [Tn] (partial, cHz-like)	46%	1E-109
cadherin-20 [Mm], type-II cadherin	37%	4E-86
cadherin-20 [Hs], type-II cadherin	37%	1E-85

Figure S1. Reciprocal BLAST searches reveal close relationships between the five ECs of type-II cadherin and the last five ECs of type-III cadherin. (A) BLAST search using a protein sequence from the five ECs of Mus musculus (Mm) cadherin-20 against nonvertebrate metazoan proteins. All three hemichordate Saccoglossus kowalevskii (Sk) proteins are typical nonchordate classical cadherins. (B) BLAST search using a protein sequence from the last five ECs of the putative Branchiostoma floridae (Bf) type-III cadherin (BRFLDRAFT\_201381) against vertebrate proteins. BLAST searches were performed using a BLOSUM62 matrix, and the following protein databases were used: nonredundant GenBank CDS translations, RefSeq Proteins, PDB, SwissProt, PIR, and PRF. The results shown were obtained on August 24, 2010. Cs, Ciona savignyi (urochordate); Ci, Ciona intestinalis (urochordate); At, Achaearanea tepidariorum (arthropod); Fc, Folsomia candida (arthropod); Dr, Danio rerio; Gg, Gallus gallus; Xt, Xenopus tropicalis; Tn, Tetraodon nigroviridis; Hs, Homo sapiens.