**Table S3** Orthologs between *Vulcanolepas fijiensis* and *Scalpellum stearnsi*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Orthologs | Internal reference | *Scalpellum stearnsi* | *Vulcanolepas fijiensis* | External reference |
| OG08533 | ama|XP\_043188736.1 | CHN|c96364\_g2 | DHV|c29218\_g1 | eua|XP\_023336110.1 |
| OG08534 | ama|XP\_043189130.1 | CHN|c96460\_g1 | DHV|c20052\_g1 | eua|XP\_023341970.1 |
| OG08535 | ama|XP\_043190029.1 | CHN|c95355\_g3 | DHV|c25431\_g1 | eua|XP\_023326939.1 |
| OG08536 | ama|XP\_043190040.1 | CHN|c80935\_g2 | DHV|c21723\_g1 | eua|XP\_023345535.1 |
| OG08537 | ama|XP\_043190041.1 | CHN|c90100\_g1 | DHV|c11937\_g1 | eua|XP\_023321811.1 |
| OG08538 | ama|XP\_043190042.1 | CHN|c97216\_g4 | DHV|c23679\_g1 | eua|XP\_023333620.1 |
| OG08539 | ama|XP\_043190501.1 | CHN|c87577\_g1 | DHV|c34430\_g1 | eua|XP\_023333294.1 |
| OG08540 | ama|XP\_043190741.1 | CHN|c92616\_g1 | DHV|c22465\_g1 | eua|XP\_023334142.1 |
| OG08541 | ama|XP\_043191305.1 | CHN|c90062\_g1 | DHV|c24997\_g1 | eua|XP\_023325125.1 |
| OG08543 | ama|XP\_043192991.1 | CHN|c83849\_g1 | DHV|c23977\_g1 | eua|XP\_023344927.1 |
| OG08545 | ama|XP\_043193373.1 | CHN|c94664\_g1 | DHV|c19922\_g1 | eua|XP\_023332132.1 |
| OG08546 | ama|XP\_043195538.1 | CHN|c88012\_g2 | DHV|c41464\_g1 | eua|XP\_023325450.1 |
| OG08547 | ama|XP\_043195581.1 | CHN|c20252\_g1 | DHV|c20876\_g1 | eua|XP\_023338857.1 |
| OG08548 | ama|XP\_043195714.1 | CHN|c84339\_g1 | DHV|c26003\_g2 | eua|XP\_023345017.1 |
| OG08550 | ama|XP\_043196590.1 | CHN|c80376\_g2 | DHV|c34382\_g1 | eua|XP\_023343105.1 |
| OG08552 | ama|XP\_043197260.1 | CHN|c34294\_g1 | DHV|c51428\_g1 | eua|XP\_023328160.1 |
| OG08554 | ama|XP\_043197657.1 | CHN|c90039\_g2 | DHV|c33487\_g8 | eua|XP\_023332099.1 |
| OG08555 | ama|XP\_043197875.1 | CHN|c15013\_g1 | DHV|c45171\_g1 | eua|XP\_023322892.1 |
| OG08556 | ama|XP\_043198184.1 | CHN|c61493\_g1 | DHV|c33599\_g7 | eua|XP\_023326597.1 |
| OG08557 | ama|XP\_043198430.1 | CHN|c93637\_g2 | DHV|c32667\_g1 | eua|XP\_023349407.1 |
| OG08558 | ama|XP\_043198832.1 | CHN|c110623\_g1 | DHV|c34158\_g2 | eua|XP\_023329844.1 |
| OG08561 | ama|XP\_043199394.1 | CHN|c60459\_g1 | DHV|c15568\_g1 | eua|XP\_023349089.1 |
| OG08563 | ama|XP\_043201627.1 | CHN|c74151\_g1 | DHV|c38402\_g1 | eua|XP\_023335326.1 |
| OG08564 | ama|XP\_043201940.1 | CHN|c92282\_g1 | DHV|c33395\_g4 | eua|XP\_023330952.1 |
| OG08565 | ama|XP\_043203118.1 | CHN|c96311\_g2 | DHV|c33082\_g1 | eua|XP\_023338539.1 |
| OG08566 | ama|XP\_043203368.1 | CHN|c80322\_g1 | DHV|c33612\_g2 | eua|XP\_023337395.1 |
| OG08568 | ama|XP\_043205710.1 | CHN|c67730\_g1 | DHV|c25157\_g1 | eua|XP\_023343484.1 |
| OG08569 | ama|XP\_043206528.1 | CHN|c72449\_g1 | DHV|c20487\_g1 | eua|XP\_023337543.1 |
| OG08570 | ama|XP\_043207086.1 | CHN|c82155\_g1 | DHV|c34067\_g1 | eua|XP\_023325113.1 |
| OG08571 | ama|XP\_043208298.1 | CHN|c93239\_g2 | DHV|c19526\_g1 | eua|XP\_023333425.1 |
| OG08572 | ama|XP\_043208335.1 | CHN|c95071\_g3 | DHV|c28032\_g1 | eua|XP\_023337265.1 |
| OG08573 | ama|XP\_043208458.1 | CHN|c35602\_g1 | DHV|c6673\_g1 | eua|XP\_023336745.1 |
| OG08574 | ama|XP\_043208970.1 | CHN|c97368\_g1 | DHV|c16066\_g2 | eua|XP\_023320878.1 |
| OG08576 | ama|XP\_043209217.1 | CHN|c94960\_g1 | DHV|c20128\_g1 | eua|XP\_023342637.1 |
| OG08577 | ama|XP\_043209948.1 | CHN|c87819\_g1 | DHV|c31298\_g1 | eua|XP\_023347507.1 |
| OG08578 | ama|XP\_043210099.1 | CHN|c31223\_g1 | DHV|c33115\_g1 | eua|XP\_023346370.1 |
| OG08579 | ama|XP\_043210748.1 | CHN|c123273\_g1 | DHV|c26873\_g1 | eua|XP\_023334027.1 |
| OG08580 | ama|XP\_043211351.1 | CHN|c95029\_g1 | DHV|c30131\_g1 | eua|XP\_023335600.1 |
| OG08581 | ama|XP\_043211937.1 | CHN|c95272\_g2 | DHV|c27761\_g1 | eua|XP\_023339667.1 |
| OG08582 | ama|XP\_043211994.1 | CHN|c91713\_g1 | DHV|c27421\_g1 | eua|XP\_023322538.1 |
| OG08584 | ama|XP\_043212294.1 | CHN|c93830\_g1 | DHV|c31193\_g1 | eua|XP\_023322871.1 |
| OG08586 | ama|XP\_043212383.1 | CHN|c84615\_g2 | DHV|c13142\_g1 | eua|XP\_023341713.1 |
| OG08587 | ama|XP\_043212474.1 | CHN|c89418\_g1 | DHV|c7975\_g1 | eua|XP\_023348443.1 |
| OG08588 | ama|XP\_043212802.1 | CHN|c72113\_g2 | DHV|c33142\_g1 | eua|XP\_023328029.1 |
| OG08589 | ama|XP\_043212820.1 | CHN|c77119\_g1 | DHV|c32290\_g1 | eua|XP\_023319677.1 |
| OG08590 | ama|XP\_043213063.1 | CHN|c58184\_g1 | DHV|c34432\_g3 | eua|XP\_023344892.1 |
| OG08591 | ama|XP\_043213481.1 | CHN|c16302\_g1 | DHV|c12865\_g1 | eua|XP\_023326521.1 |
| OG08592 | ama|XP\_043214016.1 | CHN|c94564\_g1 | DHV|c27300\_g1 | eua|XP\_023321187.1 |
| OG08593 | ama|XP\_043214047.1 | CHN|c86689\_g1 | DHV|c23153\_g1 | eua|XP\_023345717.1 |
| OG08594 | ama|XP\_043214190.1 | CHN|c87907\_g2 | DHV|c43510\_g1 | eua|XP\_023335196.1 |
| OG08595 | ama|XP\_043214526.1 | CHN|c88290\_g1 | DHV|c23678\_g1 | eua|XP\_023346824.1 |
| OG08596 | ama|XP\_043214547.1 | CHN|c90266\_g1 | DHV|c41484\_g1 | eua|XP\_023336675.1 |
| OG08597 | ama|XP\_043214654.1 | CHN|c91195\_g3 | DHV|c20170\_g1 | eua|XP\_023323881.1 |
| OG08598 | ama|XP\_043215038.1 | CHN|c94969\_g2 | DHV|c16137\_g1 | eua|XP\_023323173.1 |
| OG08600 | ama|XP\_043215315.1 | CHN|c79716\_g1 | DHV|c32346\_g1 | eua|XP\_023325028.1 |
| OG08601 | ama|XP\_043215402.1 | CHN|c78540\_g1 | DHV|c35207\_g1 | eua|XP\_023336664.1 |
| OG08602 | ama|XP\_043215616.1 | CHN|c95108\_g1 | DHV|c34553\_g3 | eua|XP\_023342022.1 |
| OG08603 | ama|XP\_043216056.1 | CHN|c96287\_g1 | DHV|c16372\_g1 | eua|XP\_023327407.1 |
| OG08604 | ama|XP\_043216069.1 | CHN|c22851\_g1 | DHV|c53001\_g1 | eua|XP\_023331897.1 |
| OG08605 | ama|XP\_043216297.1 | CHN|c85254\_g1 | DHV|c15977\_g1 | eua|XP\_023338457.1 |
| OG08606 | ama|XP\_043216300.1 | CHN|c68961\_g1 | DHV|c32266\_g2 | eua|XP\_023342837.1 |
| OG08607 | ama|XP\_043216428.1 | CHN|c78351\_g1 | DHV|c29932\_g1 | eua|XP\_023324620.1 |
| OG08608 | ama|XP\_043216509.1 | CHN|c92733\_g1 | DHV|c12440\_g1 | eua|XP\_023330493.1 |
| OG08609 | ama|XP\_043216744.1 | CHN|c106411\_g1 | DHV|c23926\_g1 | eua|XP\_023328013.1 |
| OG08610 | ama|XP\_043216888.1 | CHN|c93887\_g2 | DHV|c47556\_g1 | eua|XP\_023343147.1 |
| OG08611 | ama|XP\_043216967.1 | CHN|c75989\_g1 | DHV|c32970\_g1 | eua|XP\_023334334.1 |
| OG08612 | ama|XP\_043217390.1 | CHN|c96639\_g3 | DHV|c25574\_g1 | eua|XP\_023342200.1 |
| OG08613 | ama|XP\_043218685.1 | CHN|c96002\_g9 | DHV|c30329\_g3 | eua|XP\_023340519.1 |
| OG08614 | ama|XP\_043218727.1 | CHN|c63288\_g1 | DHV|c45528\_g1 | eua|XP\_023328570.1 |
| OG08615 | ama|XP\_043218984.1 | CHN|c109779\_g1 | DHV|c34093\_g1 | eua|XP\_023320401.1 |
| OG08616 | ama|XP\_043219096.1 | CHN|c86497\_g1 | DHV|c41292\_g1 | eua|XP\_023342945.1 |
| OG08617 | ama|XP\_043219101.1 | CHN|c84182\_g1 | DHV|c23880\_g1 | eua|XP\_023346327.1 |
| OG08618 | ama|XP\_043219141.1 | CHN|c95226\_g2 | DHV|c30014\_g3 | eua|XP\_023335758.1 |
| OG08619 | ama|XP\_043219748.1 | CHN|c76309\_g1 | DHV|c8046\_g1 | eua|XP\_023332066.1 |
| OG08620 | ama|XP\_043220152.1 | CHN|c64465\_g1 | DHV|c21084\_g1 | eua|XP\_023327597.1 |
| OG08621 | ama|XP\_043220571.1 | CHN|c90508\_g1 | DHV|c25435\_g1 | eua|XP\_023343333.1 |
| OG08622 | ama|XP\_043220589.1 | CHN|c87340\_g1 | DHV|c20806\_g1 | eua|XP\_023330259.1 |
| OG08623 | ama|XP\_043220608.1 | CHN|c67128\_g1 | DHV|c28949\_g1 | eua|XP\_023339000.1 |
| OG08624 | ama|XP\_043220643.1 | CHN|c119494\_g1 | DHV|c29574\_g1 | eua|XP\_023330942.1 |
| OG08626 | ama|XP\_043223557.1 | CHN|c95914\_g2 | DHV|c23486\_g1 | eua|XP\_023324562.1 |
| OG08627 | ama|XP\_043224536.1 | CHN|c81998\_g1 | DHV|c24118\_g1 | eua|XP\_023343201.1 |
| OG08628 | ama|XP\_043224881.1 | CHN|c94372\_g1 | DHV|c16258\_g1 | eua|XP\_023340513.1 |
| OG08629 | ama|XP\_043225488.1 | CHN|c88082\_g1 | DHV|c11648\_g1 | eua|XP\_023332640.1 |
| OG08630 | ama|XP\_043225685.1 | CHN|c80288\_g2 | DHV|c23205\_g1 | eua|XP\_023347460.1 |
| OG08631 | ama|XP\_043227168.1 | CHN|c92540\_g1 | DHV|c33455\_g3 | eua|XP\_023327334.1 |
| OG08632 | ama|XP\_043227189.1 | CHN|c96990\_g3 | DHV|c27105\_g1 | eua|XP\_023335089.1 |
| OG08633 | ama|XP\_043227354.1 | CHN|c89032\_g4 | DHV|c24665\_g3 | eua|XP\_023341653.1 |
| OG08634 | ama|XP\_043227560.1 | CHN|c93315\_g1 | DHV|c23537\_g1 | eua|XP\_023345414.1 |
| OG08635 | ama|XP\_043227593.1 | CHN|c76298\_g1 | DHV|c2070\_g1 | eua|XP\_023339934.1 |
| OG08636 | ama|XP\_043227959.1 | CHN|c70285\_g1 | DHV|c32602\_g1 | eua|XP\_023328294.1 |
| OG08637 | ama|XP\_043228111.1 | CHN|c81705\_g2 | DHV|c7868\_g1 | eua|XP\_023331355.1 |
| OG08638 | ama|XP\_043228162.1 | CHN|c68200\_g3 | DHV|c28229\_g1 | eua|XP\_023344760.1 |
| OG08640 | ama|XP\_043228531.1 | CHN|c14768\_g1 | DHV|c34548\_g1 | eua|XP\_023332475.1 |
| OG08641 | ama|XP\_043228640.1 | CHN|c123\_g1 | DHV|c24290\_g1 | eua|XP\_023339557.1 |
| OG08642 | ama|XP\_043228644.1 | CHN|c94901\_g1 | DHV|c5291\_g1 | eua|XP\_023341514.1 |
| OG08643 | ama|XP\_043228378.1 | CHN|c76220\_g2 | DHV|c34558\_g3 | eua|XP\_023339194.1 |
| OG08644 | ama|XP\_043228852.1 | CHN|c95602\_g3 | DHV|c34015\_g3 | eua|XP\_023331012.1 |
| OG08645 | ama|XP\_043229645.1 | CHN|c63622\_g1 | DHV|c26985\_g1 | eua|XP\_023327670.1 |
| OG08646 | ama|XP\_043229677.1 | CHN|c64778\_g1 | DHV|c32539\_g1 | eua|XP\_023326852.1 |
| OG08647 | ama|XP\_043230737.1 | CHN|c92232\_g3 | DHV|c17732\_g1 | eua|XP\_023336611.1 |
| OG08648 | ama|XP\_043231253.1 | CHN|c10998\_g1 | DHV|c27658\_g1 | eua|XP\_023329643.1 |
| OG08649 | ama|XP\_043231283.1 | CHN|c96263\_g4 | DHV|c32712\_g1 | eua|XP\_023336717.1 |
| OG08650 | ama|XP\_043231305.1 | CHN|c84859\_g5 | DHV|c13306\_g1 | eua|XP\_023327845.1 |
| OG08651 | ama|XP\_043231322.1 | CHN|c86480\_g1 | DHV|c9177\_g1 | eua|XP\_023338697.1 |
| OG08653 | ama|XP\_043232885.1 | CHN|c91846\_g4 | DHV|c16313\_g1 | eua|XP\_023320890.1 |
| OG08654 | ama|XP\_043233031.1 | CHN|c72566\_g1 | DHV|c34080\_g6 | eua|XP\_023332954.1 |
| OG08655 | ama|XP\_043233353.1 | CHN|c90248\_g2 | DHV|c33956\_g6 | eua|XP\_023333160.1 |
| OG08656 | ama|XP\_043233354.1 | CHN|c96268\_g1 | DHV|c19200\_g1 | eua|XP\_023323695.1 |
| OG08659 | ama|XP\_043234230.1 | CHN|c86413\_g1 | DHV|c23747\_g1 | eua|XP\_023322728.1 |
| OG08660 | ama|XP\_043234260.1 | CHN|c78108\_g1 | DHV|c19666\_g1 | eua|XP\_023328948.1 |
| OG08661 | ama|XP\_043234341.1 | CHN|c77251\_g1 | DHV|c12505\_g1 | eua|XP\_023332528.1 |
| OG08662 | ama|XP\_043234408.1 | CHN|c71647\_g1 | DHV|c31272\_g2 | eua|XP\_023323916.1 |
| OG08663 | ama|XP\_043234638.1 | CHN|c96704\_g4 | DHV|c41290\_g1 | eua|XP\_023347671.1 |
| OG08664 | ama|XP\_043234801.1 | CHN|c65822\_g1 | DHV|c34893\_g1 | eua|XP\_023320964.1 |
| OG08665 | ama|XP\_043234824.1 | CHN|c91607\_g1 | DHV|c22420\_g1 | eua|XP\_023325943.1 |
| OG08666 | ama|XP\_043235336.1 | CHN|c102679\_g1 | DHV|c21973\_g1 | eua|XP\_023346196.1 |
| OG08667 | ama|XP\_043235741.1 | CHN|c96126\_g5 | DHV|c19788\_g1 | eua|XP\_023333116.1 |
| OG08668 | ama|XP\_043236110.1 | CHN|c73067\_g1 | DHV|c27809\_g2 | eua|XP\_023319969.1 |
| OG08670 | ama|XP\_043237829.1 | CHN|c83784\_g2 | DHV|c31471\_g1 | eua|XP\_023346035.1 |
| OG08671 | ama|XP\_043237975.1 | CHN|c8532\_g1 | DHV|c32984\_g1 | eua|XP\_023335079.1 |
| OG08672 | ama|XP\_043237976.1 | CHN|c95310\_g2 | DHV|c31823\_g2 | eua|XP\_023326459.1 |
| OG08673 | ama|XP\_043238115.1 | CHN|c91769\_g3 | DHV|c29238\_g1 | eua|XP\_023324353.1 |
| OG08674 | ama|XP\_043238306.1 | CHN|c31171\_g1 | DHV|c34014\_g1 | eua|XP\_023329469.1 |
| OG08675 | ama|XP\_043238601.1 | CHN|c84869\_g2 | DHV|c24715\_g2 | eua|XP\_023330985.1 |
| OG08676 | ama|XP\_043238607.1 | CHN|c93934\_g1 | DHV|c25179\_g1 | eua|XP\_023338480.1 |
| OG08677 | ama|XP\_043238916.1 | CHN|c95374\_g2 | DHV|c33955\_g2 | eua|XP\_023339731.1 |
| OG08678 | ama|XP\_043239466.1 | CHN|c78759\_g1 | DHV|c35445\_g1 | eua|XP\_023331591.1 |
| OG08679 | ama|XP\_043239691.1 | CHN|c119647\_g1 | DHV|c17490\_g1 | eua|XP\_023337262.1 |
| OG08680 | ama|XP\_043239692.1 | CHN|c58258\_g1 | DHV|c7594\_g1 | eua|XP\_023319686.1 |
| OG08682 | ama|XP\_043240214.1 | CHN|c119345\_g1 | DHV|c15124\_g1 | eua|XP\_023346572.1 |
| OG08683 | ama|XP\_043240565.1 | CHN|c121709\_g1 | DHV|c26026\_g1 | eua|XP\_023323420.1 |
| OG08684 | ama|XP\_043240620.1 | CHN|c79497\_g1 | DHV|c24640\_g1 | eua|XP\_023345985.1 |
| OG08685 | ama|XP\_043241065.1 | CHN|c81104\_g1 | DHV|c11726\_g1 | eua|XP\_023322960.1 |
| OG08686 | ama|XP\_043241107.1 | CHN|c91274\_g3 | DHV|c9400\_g1 | eua|XP\_023335167.1 |
| OG08687 | ama|XP\_043242346.1 | CHN|c89565\_g1 | DHV|c32565\_g1 | eua|XP\_023344606.1 |
| OG08688 | ama|XP\_043243226.1 | CHN|c92562\_g1 | DHV|c17175\_g1 | eua|XP\_023328211.1 |
| OG08689 | ama|XP\_043243423.1 | CHN|c96832\_g1 | DHV|c11610\_g1 | eua|XP\_023319908.1 |
| OG08690 | ama|XP\_043243680.1 | CHN|c74547\_g1 | DHV|c4579\_g1 | eua|XP\_023324610.1 |
| OG08691 | ama|XP\_043243718.1 | CHN|c36218\_g1 | DHV|c30752\_g2 | eua|XP\_023341828.1 |
| OG08692 | ama|XP\_043245158.1 | CHN|c88670\_g1 | DHV|c34255\_g2 | eua|XP\_023336459.1 |
| OG08693 | ama|XP\_043245219.1 | CHN|c78780\_g3 | DHV|c14854\_g1 | eua|XP\_023348863.1 |
| OG08694 | ama|XP\_043245409.1 | CHN|c90125\_g1 | DHV|c11620\_g1 | eua|XP\_023334078.1 |
| OG08695 | ama|XP\_043245434.1 | CHN|c53982\_g1 | DHV|c16830\_g1 | eua|XP\_023328313.1 |
| OG08696 | ama|XP\_043245473.1 | CHN|c84864\_g1 | DHV|c29374\_g1 | eua|XP\_023329077.1 |
| OG08697 | ama|XP\_043245616.1 | CHN|c87357\_g1 | DHV|c29863\_g1 | eua|XP\_023341838.1 |
| OG08698 | ama|XP\_043246336.1 | CHN|c92114\_g1 | DHV|c30429\_g1 | eua|XP\_023321483.1 |
| OG08699 | ama|XP\_043246392.1 | CHN|c114317\_g1 | DHV|c16329\_g1 | eua|XP\_023323994.1 |
| OG08701 | ama|XP\_043247368.1 | CHN|c94825\_g1 | DHV|c32517\_g1 | eua|XP\_023349661.1 |