**Table S2** Haplotype of *Haemonchus contortus* *ITS2* sequences and accession numbers of isolates forming groups.

|  |  |  |
| --- | --- | --- |
|  | **No. of Isolate** | **Accession Numbers** |
| **Hap01** | 82 | KJ724296-Austria KJ724295-Austria KJ724294-Austria KJ724293-Austria KJ724292-Austria KJ724291-Austria KJ724290-Austria KJ724289-Austria KJ724288-Austria KJ724287-Austria KJ724286-Austria KJ724285-Austria KJ724284-Austria KJ724283-Austria KJ724282-Austria KJ724281-Austria KJ724280-Austria KJ724279-Austria KJ724278-Austria KJ724277-Austria KJ724276-Austria KJ724275-Austria KJ724274-Austria KJ724273-Austria KJ724272-Austria KJ724271-Austria KJ724270-Austria KJ724269-Austria KJ724268-Austria KJ724267-Austria KJ724266-Austria KJ724265-Austria KJ724264-Austria KJ724263-Austria KJ724262-Austria KJ724261-Austria KJ724260-Austria KJ724259-Austria KJ724258-Austria KJ724257-Austria KJ724256-Austria KJ724255-Austria KJ724254-Austria KJ724253-Austria KJ724252-Austria KJ724251-Austria KJ724250-Austria KJ724305-Austria KJ724304-Austria KJ724303-Austria KJ724302-Austria KJ724301-Austria KJ724300-Austria KJ724299-Austria KJ724298-Austria KJ724297-Austria KJ724323-Austria KJ724322-Austria KJ724319-Austria KJ724318-Austria KJ724317-Austria KJ724316-Austria KJ724315-Austria KJ724314-Austria KJ724313-Austria KJ724312-Austria KJ724311-Austria KJ724310-Austria KJ724309-Austria KJ724308-Austria KJ724307-Austria KJ724306-Austria LC360157-Bangladesh LC275896-Iraq LC275895-Iraq LC275894-Iraq LC275893-Iraq ON400680-Greece ON400678-Greece ON400676-Greece ON400674-Greece MT424912-Thailand |
| **Hap02** | 203 | KJ188206-Turkey KJ188205-Turkey KJ188204-Turkey KJ188203-Turkey KF364632-Australia KF364631-Australia KF364630-Australia KF364629-Australia KF364628-Australia KC632567-Australia KC503915-Uzbekistan KC415134-China KC415132-China KC415127-China KC415124-China KC415123-China KC415122-China KC415118-China KC415117-China JX869075-Czech Republic JX869074-Czech Republic JX869072-Czech Republic JX869071-Czech Republic JX869070-Czech Republic JX869069-Czech Republic JX869068-Czech Republic JX869067-Czech Republic JX869066-Czech Republic JN590058-Mongolia JN590056-Mongolia JN590055-Mongolia HQ844231-China HQ683713-Malaysia HQ683712-Malaysia HQ683710-Malaysia HQ389229-Iran FN432336-Italy FN432335-Italy EU086393-United States of America EU086387-United States of America EU086383-United States of America EU086378-United States of America EU084691-United States of America EU084688-United States of America EU084686-United States of America EU084684-United States of America EU084683-United States of America AY647245-Malaysia AB908961-Laos KY305782-China KY305781-China KY305780-China KX534106-China KX534105-China KX534104-China KX534103-China KX534101-China KX534099-China KX534098-China KX534097-China KX534095-China KX534094-China KX358860-Poland KU891902-Nigeria KU891901-Nigeria KU891900-Nigeria KU891899-Austria KU891898-Austria KU891897-Austria KU891896-Austria KU891892-Austria KU891891-Austria KU891890-Austria KU891889-Austria KU891888-Austria KU891886-Austria KU891885-Austria KU891882-Austria KU891881-Austria KU891880-Austria KU891879-Austria KU891878-Austria KU891877-Austria KU891876-Argentina KU891875-Argentina KU891874-Argentina KU891873-Argentina KU891872-Argentina KU891871-Argentina KU891870-Argentina KU891869-Argentina KU891868-Argentina KU891867-Argentina KU891866-Argentina KU891865-Argentina KU891864-Argentina KU891863-Argentina KU891862-Argentina KU891861-Argentina KU891860-Argentina KU891859-Argentina KU891858-Argentina KU891857-Argentina KU891856-Argentina KU891855-Argentina KU891854-Argentina KU891852-Argentina KU558756-Bangladesh KU558755-Bangladesh KP101381-Thailand KP101374-Thailand KP101373-Thailand KP101371-Thailand KP101370-Thailand KP101368-Thailand KP101365-Thailand KP101364-Thailand KP101363-Thailand KP090293-Egypt KP090290-Egypt KP090289-Egypt KJ938047-India KJ938046-India KJ938045-India KJ938044-India KJ938043-India KJ857560-India KJ857559-India KJ857557-India KJ724321-Austria KJ724320-Austria KY305788-China MT424902-Thailand MN860563-China MN860560-China MN708989-Cameroon MN708988-Cameroon MN708986-Cameroon MN708979-Cameroon MN708977-Cameroon MH481593-Ghana LC716169-Bangladesh LC716164-Bangladesh LC716159-Bangladesh LC716158-Bangladesh LC716157-Bangladesh LC716154-Bangladesh LC368062-Nigeria LC368048-Nigeria LC368047-Nigeria LC368044-Nigeria LC367347-Nigeria LC367346-Nigeria LC360160-Bangladesh LC360159-Bangladesh LC360153-Bangladesh LC360147-Bangladesh LC360146-Bangladesh MT424910-Thailand MT424908-Thailand MT424907-Thailand MT424904-Thailand PP836652-Thailand PP836644-Thailand PP836643-Thailand PP836642-Thailand PP836641-Thailand PP836639-Thailand PP836638-Thailand ON400670-Greece ON400669-Greece ON400668-Greece ON400667-Greece ON400666-Greece ON400665-Greece ON400664-Greece ON032988-Iraq OM276841-Pakistan OM276826-Pakistan OM276825-Pakistan OK447936-Pakistan OK447934-Pakistan MZ297609-Laos MZ297608-Laos MZ297607-Laos MZ297605-Laos MZ297604-Laos MZ297603-Laos MZ297602-Laos MT682966-Laos MT682965-Laos MT682962-Laos MT682961-Laos MT682960-Laos MT682959-Laos MT682958-Laos MT682957-Laos MT682919-China MT682918-China MT682916-China MT682915-China MT682914-China MT424911-Thailand |
| **Hap03** | 2 | KC503916-Uzbekistan KJ920741-Pakistan1 |
| **Hap04** | 62 | KC415133-China KC415129-China KC415128-China KC415126-China KC415125-China KC415121-China KC415119-China JX869073-Czech Republic HQ683714-Malaysia EU084689-United States of America EU084687-United States of America KY305784-China KY305783-China KU891883-Austria KU891853-Argentina KU558759-Bangladesh KU558758-Bangladesh KU558757-Bangladesh KP101383-Thailand KP101372-Thailand KP101369-Thailand KP090288-Egypt MN860559-China MN708987-Cameroon MN708985-Cameroon MN708984-Cameroon MN708983-Cameroon MN708982-Cameroon MH481599-China MH481598-Ghana MH481597-Ghana MH481595-Ghana MH481594-Ghana MH481591-Ghana MH481590-Ghana MH481576-Ghana MH481575-Ghana MH481574-Ghana MH481573-Ghana LC716168-Bangladesh LC716167-Bangladesh LC716162-Bangladesh LC716161-Bangladesh LC430927-Nigeria LC368061-Nigeria LC368060-Nigeria LC368057-Nigeria LC368050-Nigeria LC368043-Nigeria LC367350-Nigeria LC367349-Nigeria LC360158-Bangladesh LC360156-Bangladesh LC360149-Bangladesh LC360148-Bangladesh MT424903-Thailand PP836650-Thailand PP836649-Thailand PP836646-Thailand PP836640-Thailand MT682963-Laos MT682917-China |
| **Hap05** | 9 | KC415131-China HQ683711-Malaysia AJ577465-France MN860564-China LC368041.seq LC368041-Nigeria LC360163-Bangladesh LC360154-Bangladesh PP836648-Thailand |
| **Hap06** | 3 | KC415130-China HQ683715-Malaysia OM276845-Pakistan |
| **Hap07** | 4 | KC415120-China KP101382-Thailand KP101377-Thailand LC360145-Bangladesh |
| **Hap08** | 6 | JN590059-Mongolia JN590053-Mongolia EU084682-United States of America KP101367-Thailand LC360152-Bangladesh LC360151-Bangladesh |
| **Hap09** | 2 | JN590057-Mongolia LC716153-Bangladesh |
| **Hap10** | 10 | JN590054-Mongolia EU086391-United States of America EU086386-United States of America EU086379-United States of America EU086377-United States of America KY305785-China KP101375-Thailand KY305786-China MN860565-China MZ297610-Laos |
| **Hap11** | 10 | JF680983-Ireland EU086392-United States of America EU086380-United States of America EU084690-United States of America EU084685-United States of America AB908963-Laos KU891894-Austria KU891893-Austria KU891887-Austria KU891884-Austria |
| **Hap12** | 1 | EU086390-United States of America |
| **Hap13** | 1 | EU086389-United States of America |
| **Hap14** | 4 | EU086388-United States of America EU086382-United States of America KP101379-Thailand MH481582-Ghana |
| **Hap15** | 1 | EU086385-United States of America |
| **Hap16** | 1 | EU086384-United States of America |
| **Hap17** | 1 | EU086381-United States of America |
| **Hap18** | 1 | EU086376-United States of America |
| **Hap19** | 1 | AY639623-Malaysia |
| **Hap20** | 1 | AB908962-Laos |
| **Hap21** | 1 | AB682687-Egypt |
| **Hap22** | 1 | AB682686-Egypt |
| **Hap23** | 9 | KX829170-Iran MH481596-Ghana MH481589-Ghana MH481588-Ghana MH481586-Ghana MH481585-Ghana MH481584-Ghana MH481583-Ghana MH481580-Ghana |
| **Hap24** | 7 | KX534102-China KJ920745-Pakistan KJ920744-Pakistan KJ920742-Pakistan KJ724344-Austria LC368073-Nigeria LC368065-Nigeria |
| **Hap25** | 1 | KX534100-China |
| **Hap26** | 1 | KX534096-China |
| **Hap27** | 1 | KX534093-China |
| **Hap28** | 2 | KX358862-Poland KX358861-Poland |
| **Hap29** | 1 | KU891895-Austria |
| **Hap30** | 7 | KP101380-Thailand KP101378-Thailan KP101366-Thailand MT424906-Thailand PP836651-Thailand PP836647-Thailand MT682964-Laos |
| **Hap31** | 1 | KP101376-Thailand |
| **Hap32** | 5 | KP090292-Egypt LC430926-Nigeria LC368058-Nigeria LC368045-Nigeria LC368040-Nigeria |
| **Hap33** | 1 | KP090291-Egypt |
| **Hap34** | 5 | KJ920743-Pakistan LC368080-Nigeria LC368070-Nigeria LC368069-Nigeria LC368068-Nigeria |
| **Hap35** | 1 | KJ857558-India |
| **Hap36** | 2 | KJ857556-India KJ857555-India |
| **Hap37** | 2 | KJ724343-Austria LC368079-Nigeria |
| **Hap38** | 1 | KJ724342-Austria |
| **Hap39** | 1 | KJ724341-Austria |
| **Hap40** | 1 | KY305789-China |
| **Hap41** | 1 | KY305787-China |
| **Hap42** | 2 | MT424901-Thailand MN860567-China |
| **Hap43** | 1 | MN860566-China |
| **Hap44** | 2 | MN860562-China MN708978-Cameroon |
| **Hap45** | 1 | MN860561-China |
| **Hap46** | 1 | MN708981-Cameroon |
| **Hap47** | 1 | MN708980-Cameroon |
| **Hap48** | 2 | MH481600-Ghana MH481592-Ghana |
| **Hap49** | 1 | MH481579-Ghana |
| **Hap50** | 1 | LC716166-Bangladesh |
| **Hap51** | 11 | LC716165-Bangladesh LC716156-Bangladesh LC716155-Bangladesh LC360162-Bangladesh LC360161-Bangladesh LC360155-Bangladesh LC360150-Bangladesh MT424909-Thailand MT424905-Thailand PP836645-Thailand MZ297606-Laos |
| **Hap52** | 1 | LC716163-Bangladesh |
| **Hap53** | 1 | LC716160-Bangladesh |
| **Hap54** | 2 | LC716152-Bangladesh LC716151-Bangladesh |
| **Hap55** | 2 | LC552171-Iraq LC552170-Iraq |
| **Hap56** | 11 | LC430925-Nigeria LC368063-Nigeria LC368046-Nigeria LC367345-Nigeria LC367344-Nigeria ON400679-Greece ON400675-Greece ON400673-Greece ON400671-Greece ON400663-Greece ON400662-Greece |
| **Hap57** | 1 | LC379606-Mongolia |
| **Hap58** | 2 | LC368078-Nigeria LC368075-Nigeria |
| **Hap59** | 2 | LC368077-Nigeria LC368064-Nigeria |
| **Hap60** | 2 | LC368076-Nigeria LC368074-Nigeria |
| **Hap61** | 2 | LC368072-Nigeria LC368067-Nigeria |
| **Hap62** | 1 | LC368071-Nigeria |
| **Hap63** | 1 | LC368066-Nigeria |
| **Hap64** | 1 | LC368059-Nigeria |
| **Hap65** | 1 | LC368049-Nigeria |
| **Hap66** | 1 | LC368042-Nigeria |
| **Hap67** | 1 | LC367348-Nigeria |
| **Hap68** | 2 | ON400677-Greec ON400672-Greec |
| **Hap69** | 1 | ON032985-Iraq |
| **Hap70** | 1 | ON032984-Iraq |
| **Hap71** | 2 | OM276846-Pakistan OM276828-Pakistan |
| **Hap72** | 1 | OM276840-Pakistan |